

SANS

Social & Affective Neuroscience Society

Virtual Conference

May 4 - 6, 2022

14th Annual

Program At-A-Glance

							DAY 1	DAY 2	DAY 3
							Wednesday, May 4	Thursday, May 5	Friday, May 6
Los Angeles	New York		London	Paris	Tokyo	Sydney			
PDT	EDT	GMT	BST	CEST	JST	AEST			
6:00	9:00	13:00	14:00	15:00	22:00	23:00			Blitz Topics
6:30	9:30	13:30	14:30	15:30	22:30	23:30	Opening Remarks	Symposium #4: Social Learning and Decision-Making	Poster Session #3 Gather.town Live
7:00	10:00	14:00	15:00	16:00	23:00	0:00	Symposium #1: Prejudice and Intergroup Relations	Early Career Award Talk: Jon Freeman	
7:30	10:30	14:30	15:30	16:30	23:30	0:30		Break	Break
8:00	11:00	15:00	16:00	17:00	0:00	1:00	Break	NIH research priorities and funding opportunities	Symposium #6: Neuroscience of Narratives
8:30	11:30	15:30	16:30	17:30	0:30	1:30	Blitz Topics		
9:00	12:00	16:00	17:00	18:00	1:00	2:00	Poster Session #1 Gather.town Live	Break	Break
9:30	12:30	16:30	17:30	18:30	1:30	2:30		Distinguished Scholar Presentation: EVELINE CRONE	Keynote Presentation: NIM TOTTENHAM
10:00	13:00	17:00	18:00	19:00	2:00	3:00	Break	Break	Break
10:30	13:30	17:30	18:30	19:30	2:30	3:30	Symposium #2: Translational Social Affective Neuroscience	Speed Networking Event & Virtual Networking Hour	Symposium #7: Social Connection
11:00	14:00	18:00	19:00	20:00	3:00	4:00	Break	Break	Break
11:30	14:30	18:30	19:30	20:30	3:30	4:30	Diversity Symposium	Symposium #5: Naturalistic fMRI Data Analysis Challenge	Closing Remarks/ Awards - Society Business Meeting
12:00	15:00	19:00	20:00	21:00	4:00	5:00	Break	Break	
12:30	15:30	19:30	20:30	21:30	4:30	5:30		Blitz Topics	
13:00	16:00	20:00	21:00	22:00	5:00	6:00	Symposium #3: Social Networks and Real-World Interaction	Poster Session #2 Gather.town Live	
13:30	16:30	20:30	21:30	22:30	5:30	6:30			
14:00	17:00	21:00	22:00	23:00	6:00	7:00			
14:30	17:30	21:30	22:30	23:30	6:30	7:30			
15:00	18:00	22:00	23:00	0:00	7:00	8:00			
15:30	18:30	22:30	23:30	0:30	7:30	8:30			
16:00	19:00	23:00	0:00	1:00	8:00	9:00			
16:30	19:30	23:30	0:30	1:30	8:30	9:30			
17:00	20:00	0:00	1:00	2:00	9:00	10:00			
17:30	20:30	0:30	1:30	2:30	9:30	10:30			
18:00	21:00	1:00	2:00	3:00	10:00	11:00			
18:30	21:30	1:30	2:30	3:30	10:30	11:30			
							*program subject to change		

Program Contents



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About the Society

The Social & Affective Neuroscience Society (SANS) is committed to research investigating the neural basis of social and affective processes. The Society was founded in 2008 and now comprises over 400 members.



Welcome to the 14th annual SANS Conference

Dear SANS Members & Attendees,

Welcome to the 14th annual meeting of the Social & Affective Neuroscience Society (SANS)!

While SANS has been around for years, the mission of our research seems more important now more than ever.

We are two years into the COVID-19 pandemic, social inequalities are in sharp focus, and global politics are fierce. The need to understand the neurobiological mechanisms that help us to connect – or keep us from connecting – with one another is clear.

This year will be our Society's second, all-virtual conference. We know it is disappointing to still be unable to see each other in person. However, as we learned last year, there are some upsides to the virtual format. Our program this year continues leveraging these opportunities to their fullest. We are also able to again convene a larger and more diverse group of colleagues to connect professionally and interpersonally. So far, more than **275 attendees** from over **25 countries** have registered for the conference

I am deeply grateful to this year's incredible Program Co-Chairs **YC Leong** (University of Chicago) and **Meghan Meyer** (Dartmouth College) and the entire program committee, including Chelsea Hellion, Amy Krosch, Patricia Lockwood, Gregory Samenez-Larkin, Natalia Velez. The committee organized a total of **30 talks** including invited and selected symposiums, award talks, **15 blitz talks**, as well as **152 posters**.

There are so many exciting features of this year's program, but I want to mention the following three that I believe embody some of the most innovative and important steps we are taking as a field – to champion increasingly ecological and inclusive approaches in the neurosciences.

The inaugural SANS 2022 Naturalistic fMRI Data Analysis Challenge, which provides the chance to showcase new algorithms and models for analyzing naturalistic fMRI data. Data from naturalistic conditions are rich and dynamic, presenting both opportunities and challenges for researchers.

This year's Distinguished Scholar, **Dr. Eveline Crone**, from SYNC (Society, Youth Neuroscience Connected) lab at Erasmus University. Dr. Crone will speak not only to her formative research in developmental social neuroscience, but how her work aims to understand how young people develop into contributing members of society. SYNC lab does so by bridging across levels of measurement and upholding a core value that science becomes better when conducted together with societal partners, including youth panels, schools, and co-creation teams.

A Diversity Session will provide an opportunity to hear about inclusivity in the neurosciences, broadly defined. The Board and I hope this helps launch devoted efforts to making our society, and our science, more diverse and inclusive. "As neuroscientists, we work to understand the power and wonder of the brain – it is time we use these brains to create long-lasting structural change." (Jones-London, 2020, p. 214)

It is also an honor to congratulate our 2022 Early Career Awardee, **Dr. Jon Freeman** (Columbia University), who will be presenting during the conference, and our Keynote speaker **Dr. Nim Tottenham** (Columbia University). The Innovation Award winner will be announced on the final day of the conference.

We encourage everyone to gather and meet up in Gather.town, which will be available throughout the conference for mingling. Share publicly via Twitter using #SANS2022 or choose the messaging and chatting options offered through our virtual conference platform, Whova.

Welcome

Please join us for the closing session on Friday, May 6th, 2022 at 4:00pm EST. There we will announce the winner of the Innovation Award. After closing out the conference, we will discuss SANS business, and we encourage you to learn more about the inner workings of our society. This includes changes to our bylaws and an overview of elections to the SANS Board and how we now select our Executives (President, VP/President-Elect, Treasurer, Secretary, and Past-President). This presentation, as with all other presentations during the conference, will be available to watch on-demand for all registrants for 90 days after the conference concludes.

This presentation, as with all other presentations during the conference, will be available to watch on-demand for all registrants for 90 days after the conference concludes. The on-demand links should be ready within 48 hours of the conference closing.

I also want to thank **Marischal DeArmond** and the crew of **Podium Conference Specialists** (Lauren Moline, Amanda Jay, Vivek Punwani, Gail McHardy) who have further organized our society this year to adopt best practices and once again effectively execute a virtual conference. We are very fortunate to be supported by professional conference managers to enable our continued growth.

Once again, welcome and thank you to the **members of SANS and conference participants** for your engagement, enthusiasm, and effort invested to make this SANS virtual conference such a success. These next three days will provide a wonderful virtual opportunity for learning, making new connections, and renewing old ones (...both neural and interpersonal). Enjoy!

@SANS_news #SANS2022

Sincerely,

Jennifer Pfeifer

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Kateri McRae

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Awards

Distinguished Scholar Award

The Distinguished Scholar Award recognizes the broad scope and potentially integrative nature of scholarship in social and affective neuroscience. It honors a scholar who has made distinctively valuable research contributions across his or her career in areas by significantly advancing our understanding of the biological basis of social and affective processes or expanding the core of social and affective neuroscience discipline.



Eveline Crone

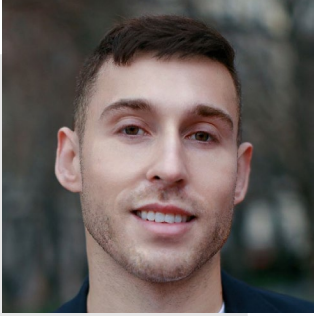
Prof. **Eveline Crone** is full professor in Developmental Neuroscience in Society at Erasmus University Rotterdam. Her Society, Youth and Neuroscience Connected (SYNC) lab examines the psychological and neural processes involved in self-regulation and social development from birth to adulthood, with a special focus on adolescence. Her research relies strongly on translational approaches, involving societal partners and youth in the full research cycle. Prof. Eveline Crone is a member of the Royal Netherlands Academy of Arts and Sciences (KNAW) and is vice-president of the Scientific Council of the European Research Council (ERC), the European Commission's excellence program for Frontier Research. Prof. Crone has been awarded several prestigious research grants including the Spinoza award for her research on the adolescent brain. The Spinoza award is the highest recognition in Dutch Science.

In addition to her scientific work, Eveline has been successfully communicating her findings to the general public. In 2018 she published the revision of the Dutch book "Het puberende brein" for a wide audience, of which over 100,000 copies have been sold. The book has been translated into six languages. In this book, Eveline Crone explains the influence of brain development on learning, risk-taking and the social relations and friendships of adolescents.

Awards

Early Career Award

The Early Career Award recognizes an early-stage investigator who has made significant contributions to Social and Affective Neuroscience terms of outstanding scholarship and service to the field. The winner of the award will receive a \$500 prize and be invited to give a short talk at the annual SANS meeting.



Jon Freeman

Columbia University

2022 Early Career Award Winner

Jon Freeman is an Associate Professor of Psychology at Columbia University. His research focuses on how we perceive other people, such as how we categorize others into social groups, infer their emotion or personality via facial cues, and more generally how we understand and react to our social world. His work examines the neural and cognitive mechanisms underlying person perception, stereotyping and less conscious forms of bias, and decision-making in social contexts, including the interplay of social, emotional, and visual processes in perceptual and interpersonal judgments. He takes an integrative and multi-level approach that makes use of several techniques, including functional neuroimaging, computational modeling, and behavioral paradigms. His research has been recognized with awards including the NSF CAREER Award, the APS Janet Taylor Spence Award, the Society for Personality & Social Psychology's SAGE Young Scholars Award, the Society for Social Neuroscience's Early Career Award, and the International Social Cognition Network's Early Career Award. His advocacy work on the disparities and educational and career barriers LGBTQ people face in STEM, and the central role that demographic data have in understanding and addressing them, recently led the US government's national STEM workforce surveys to pilot sexual orientation and gender identity questions. For this work he was recognized with the LGBTQ Scientist of the Year Award from NOGLSTP.

Keynote Speaker



Nim Tottenham

Columbia University

Nim Tottenham, PhD is a Professor of Psychology at Columbia University and Director of the Developmental Affective Neuroscience Laboratory. Her research examines brain development underlying emotional behavior in humans. In particular, her laboratory investigates the interplay between brain development and the special caregiving experienced by humans. Her research has highlighted fundamental changes in brain circuitry across development and the powerful role that early experiences, such as caregiving and stress, have on the construction of these circuits. She has authored over 125 journal articles and book chapters. She is a frequent lecturer both nationally and internationally on human brain and emotional development. She is a Fellow of the Association for Psychological Science and of the Society for Experimental Psychologists, and her scientific contributions have been recognized by the National Institute of Mental Health BRAINS Award, the American Psychological Association's Distinguished Scientific Award for Early Career Contribution to Psychology, most recently by the National Academy of Sciences Troland Research Award.

SANS Leadership

Board Members

Jennifer Pfeifer President	University of Oregon
Abigail Marsh Immediate Past President	Georgetown University
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Catherine Hartley Board Member	New York University
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Program Co-Chairs

Meghan Meyer	Dartmouth College
Yuan Chang (YC) Leong	University of Chicago

Program Committee

Chelsea Hellion	Temple University
Amy Krosch	Cornell University
Patricia Lockwood	University of Birmingham
Gregory Samenez-Larkin	Duke University
Natalia Velez	Harvard University

Review Committee

Shannon Burns	University of California, Los Angeles
Kimberley Chiew	Denver University
Dongil Chung	Ulsan National Institute of Science and Technology
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Leor Hackel	University of Southern California
Kate Humphreys	Vanderbilt University
Phil Kragel	Emory University
Tatiana Lau	Toyota Research Institute
Karolina Lempert	University of Pennsylvania
Josiah Leong	University of Arkansas
Bokyung Park	University of Texas at Dallas
Carolyn Parkinson	University of California, Los Angeles
Lindsey Powell	University of California, San Diego
Maia Pujara	Sarah Lawrence College
Yang Qu	Northwestern University
Kristina Rapuano	Yale University
Ben Tabak	Southern Methodist University
Choong-Wan Woo	Sungkyunkwan University
Adrienne Wood	University of Virginia
Lusha Zhu	Peking University

General Conference Information

Whova Virtual Conference Platform & Mobile App
Gather.Town Platform

Pre-Registration

If you have completed your registration for the virtual conference, please enter the platform through the SANS website [<https://socialaffectiveneuro.org/conference>], and follow the instructions.

Registration

If you wish to register and have not yet done so, please register here [<https://www.confmanager.com/main.cfm?cid=3127&tid=26&gcid=3127>id=32&gnid=17286>]

Note: Registrations completed after May 2, 2022 will experience a delayed access to the virtual Conference platform.

Code of conduct

By entering the virtual platform and participating in SANS Virtual Conference you are agreeing to the SANS Code of Conduct. To read the code of conduct. To read the code of conduct, please click here: [<https://socialaffectiveneuro.org/about/#codeofconduct>]

Conference Timelines

Real time streaming of the SANS Virtual Conference will take place the following times:

- May 4 – 9:30am - 6:30pm EDT
- May 5 – 9:00am - 6:30pm EDT
- May 6 – 9:00am - 4:45pm EDT

Business Meeting

The update on Society business will be provided in the closing event and available to view any time on-demand for 3 months, to ensure it is accessible to all. We encourage you to view the business meeting video to be better acquainted with the SANS.

Speed Networking Event & Virtual Networking Hour

On Thursday, May 5, 2022 from 2:15-3:15pm ET, those who have registered ahead of time as a mentor or mentee will have the opportunity to connect in Gather.town.

Gather.town

Gather.town [<https://app.gather.town/app/J3zKgqhN-80m7Yu/sans2022>] is a virtual space used as your 'onsite' Conference lobby and poster hall, where you can bump into colleagues and friends, have chance encounters with other conference attendees and strike up conversations with your fellow researchers, just like you would at an in-person event. Only registered attendees can login using the email address you registered to attend the conference with.

We recommend you use Google Chrome as your browser when using Gather.town.

Technical help during the virtual conference

If you encounter any technical issues during your virtual experience, please contact the software provider directly by emailing support@whova.com. You can also reach out to Podium Conferences at SANS@podiumconferences.com or in the "ask the organizer" space within Whova.

SANS Conference Program Schedule

Please note: All times are in EDT and need to be adjusted for your own time zone.

Wednesday, May 4

- 9:30 - 10:00am **Opening Remarks**
Moderator/Chair
Jennifer Pfeifer, *University of Oregon*
Speakers
Yuan Chang (YC) Leong, *University of Chicago*
Meghan Meyer, *Dartmouth College*
- 10:00 - 11:30am **Symposium #1: Prejudice and Intergroup Relations**
Moderator/Chair
Amy Krosch, *Cornell University*
Speakers
Mina Cikara, *Harvard University*, Social structure learning
Carrington Merritt, *UNC Chapel Hill*, The Neural Underpinnings of Intergroup Social Cognition: An fMRI Meta-Analysis
Suraiya Allidina, *University of Toronto*, Avoidance begets avoidance: A computational account of negative stereotype persistence
Kyle Ratner, *UC Santa Barbara*, Mere group membership does not influence the N170 response to faces: Results from two preregistered ERP studies
- 11:30 - 11:45am **Break**
- 11:45am - 12:15pm **Blitz Topics #1**
Moderator/Chair
Meghan Meyer, *Dartmouth College*
Speakers
★ **Haroon Popal**, *Temple University*
★ **Ren Paterson**, *University of Chicago*
★ **Candace Raio**, *New York University School of Medicine*
★ **Patrick Gilbert Reyes**, *Neuroscience Laboratory Undergraduate Research Assistant*
University of Delaware
★ **Kim Doell**, *New York University*
- 12:15 - 1:45pm **Poster Session #1 – Join us in Gather.town**
- 1:45 - 2:00pm **Break**

Program Schedule | Wednesday, May 4

2:00 - 3:30pm

Symposium #2: Translational Social Affective Neuroscience

Moderator/Chair

Greg Samanez-Larkin, Duke University

Speakers

Alexander Shackman, *University of Maryland, College Park*, The Nature and the Neurobiology of Anxiety

Molina Zhang, *Emory University*, The Neurobiology of Adult Caregiving

Aaron Heller, *University of Miami*, Overlearning from Small Prediction Errors Drives Inaccurate Real-World Expectations in Individuals with Heightened Negative Emotionality

Xiaosi Gu, *Associate Professor, Icahn School of Medicine at Mount Sinai*, Humans use vmPFC-dependent forward thinking to exploit social controllability

3:30 - 3:45pm

Break

3:45 - 4:45pm

Diversity Symposium

This inaugural Diversity Session will provide an opportunity to hear about challenges to inclusivity in the neurosciences, and potential solutions. The topics discussed will range from technological and methodological limitations of our tools and protocols that produce bias in whose data is deemed 'usable,' to creative and constructive strategies to promote diversity in our field. "As neuroscientists, we work to understand the power and wonder of the brain – it is time we use these brains to create long-lasting structural change." (Jones-London, 2020, p. 214)

Moderator/Chair

Jennifer Pfeifer, *University of Oregon*

Speakers

Dr. Jasmine Kwasa, *Neuroscience Institute at Carnegie Mellon University*

Dr. Lucina Uddi, *UCLA*

Dr. Kate Webb, *Harvard Medical School/McLean Hospital*

4:45 - 5:00pm

Break

5:00 - 6:30pm

Symposium #3: Social Networks and Real-World Interaction

Moderator/Chair

Natalia Velez, *Harvard University*

Speakers

Remi Janet, *CNRS-Institut de Sciences Cognitives Marc Jeannerod*, Regulation of social hierarchy learning by serotonin transporter availability

Erie Boorman, *UC Davis*, Map Making: Constructing, integrating, and inferring on cognitive maps of social hierarchies

Matthew Schafer, *Icahn School of Medicine at Mount Sinai*, The social landscape: navigating social interactions

Elisa Baek, *University of California, Los Angeles*, Shared understanding promotes social connection: neural and behavioral evidence

Thursday, May 5

- 9:00 - 10:30am **Symposium #4: Social Learning and Decision-Making**
Moderator/Chair
Patricia Lockwood, *University of Birmingham*
Speakers
Lusha Zhu, *Peking University*, Structure and influence in an interconnected world: neurocomputational mechanism of learning on social networks
Valeria Gazzola, *Netherlands Institute for Neuroscience/University of Amsterdam*, Learning the consequences of our actions under moral conflict
Jo Cutler, *The University of Birmingham*, Damage to ventromedial prefrontal cortex decreases effortful prosocial behaviours
Ziv Williams, *Massachusetts General Hospital*, Studying naturalistic social behavior and its neuronal underpinnings in monkeys and humans
- 10:30 - 11:00am **Early Career Award Talk**
Jon Freeman, *Columbia University*, Neural Basis of Multidimensional Social Perception
- 11:00 - 11:15am **Break**
- 11:15am - 12:45pm **Putting the 'fun' in funding: News and updates from NIH staff**
Moderator/Chair
Chelsea Helion, *Assistant Professor, Temple University*
Speakers
Matt Sutterer, *NIH - Program Director, Division of Neuroscience*
David Leitman, *NIH - Program Chief, Social Neuroscience and Communication in Adult Psychopathology Program*
Kristin Brethel-Haurwitz, *NIH - Office of Behavioral and Social Sciences Research (OBSSR)*
Elizabeth Necka, *Program Director, Behavior Change and Behavioral Interventions/Family and Interpersonal Relationships Portfolios National Institute on Aging*
- 12:45 - 1:00pm **Break**
- 1:00 - 2:00pm **Distinguished Scholar Presentation**
Speaker
Eveline Crone, *Professor in Neurocognitive Developmental Psychology, Leiden University*
- 2:00 - 2:15pm **Break**
- 2:15 - 3:15pm **Speed Networking Session & Virtual Networking Hour – Registered attendees can join us in Gather.town**
- 3:15 - 3:30pm **Break**

Program Schedule | Thursday, May 5

- 3:30 - 5:00pm **Symposium #5: Naturalistic fMRI Data Analysis Challenge**
SANS 2022 Computational Symposium - Naturalistic Data Analysis Challenge
Speakers
James Thompson, *George Mason University*
Luke Chang, *Dartmouth College*
Mark Thornton, *Dartmouth College*
- 5:00 - 5:15pm **Break**
- 5:15 - 5:45pm **Blitz Topics #2**
Moderator/Chair
Yuan Chang (YC) Leong, *University of Chicago*
Speakers
★ **HeeYoung Seon**, *Ulsan National Institution of Science and Technology*
★ **Yrian Derreumaux**, *University of California, Riverside*
★ **Marianne Reddan**, *Postdoctoral Scholar, Stanford University*
★ **Jiani Li**, *University of California, Los Angeles*
★ **Elizabeth Blevins**, *Stanford University*
- 5:45 - 7:30pm **Poster Session #2 – Join us in Gather.town**

Friday, May 6

- 9:00 - 9:30am **Blitz Topics #3**
Moderator/Chair
Meghan Meyer, *Dartmouth College*
Speakers
★ **Catalina Camacho**, *Washington University in St. Louis*
★ **Emilie Caspar**, *Ghent University*
★ **Frederic Hopp**, *University of Amsterdam*
★ **Amy Walsh**, *Karolinska Institutet*
★ **Jeesung Ahn**, *PhD Graduate Student, University of Pennsylvania*
- 9:30 - 11:00am **Poster Session #3 – Join us in Gather.town**
- 11:00 - 11:15am **Break**
- 11:15am - 12:45pm **Symposium #6: Neuroscience of Narratives**
Moderator/Chair
Meghan Meyer, *Dartmouth College*
Speakers
Monica Rosenberg, *University of Chicago*, Neural signatures of narrative engagement
Chris Baldassano, *Columbia University*, Schema representations in distinct brain networks support narrative memory during encoding and retrieval

Program Schedule | Friday, May 6

Tim Broom, *Ohio State University*, Beliefs about racial discrimination predict neural synchrony during viewing of a story of personal experience with discrimination

Yaara Yeshurun, *Tel Aviv University*, Deeper Than You Think: Partisanship-Dependent Brain Responses

12:45 - 1:00pm

Break

1:00 - 2:00pm

Keynote Presentation

Speaker

Nim Tottenham, *Ph.D., Professor of Psychology, Columbia University*, Emotional Brain Development & the Role of Parental Care

2:00 - 2:15pm

Break

2:15 - 3:45pm

Symposium #7: Social Connection

Moderator/Chair

Meghan Meyer, *Dartmouth College*

Speakers

Victoria Leong, *Cambridge University*, The Parent-Infant Social Connection: A Dyadic Neuroscience Perspective

Camille Testard, *University of Pennsylvania*, Social connection in primates: from behavior to neurons

Livia Tomova, *University of Cambridge*, Effects of isolation on adolescent cognition

Naomi Eisenberger, *UCLA*, How the immune system regulates social experience

3:45 - 4:00pm

Break

4:00 - 4:45pm

Closing Remarks & Awards

Moderator/Chair

Jennifer Pfeifer, *University of Oregon*

Speakers

Yuan Chang (YC) Leong, *University of Chicago*

Meghan Meyer, *Dartmouth College*

SANS Conference Oral Presentations

Wednesday, May 4

Symposium #1: Prejudice and Intergroup Relations

S1.1 Social structure learning

Mina Cikara¹, Tatiana Lau², Samuel Gershman¹

¹Harvard University, ²Royal Holloway University of London

BACKGROUND AND AIM: Humans form social coalitions in every society, yet we know little about how we learn and represent social group boundaries. Here we derive predictions from a computational model of latent structure learning to move beyond explicit category labels and interpersonal, or dyadic, similarity as the sole inputs to social group representations. **METHODS:** Using a model-based analysis of functional neuroimaging data, we find that separate areas correlate with dyadic similarity and latent structure learning. **RESULTS:** Trial-by-trial estimates of 'allyship' based on dyadic similarity between participants and each agent recruited medial prefrontal cortex/pregenual anterior cingulate (pgACC). Latent social group structure-based allyship estimates, in contrast, recruited right anterior insula (rAI). Variability in the brain signal from rAI improved prediction of variability in ally-choice behavior, whereas variability from the pgACC did not. **CONCLUSION:** These results provide novel insights into the psychological and neural mechanisms by which people learn to distinguish 'us' from 'them.' **FUNDING:** NIH SIGP S10OD020039; NSF BCS-1653188; Harvard MBB.

S1.2 The Neural Underpinnings of Intergroup Social Cognition: An fMRI Meta-Analysis

Carrington Merritt¹, Jennifer MacCormack², Andrea Stein³, Kristen Lindquist¹, Keely Muscatell¹

¹University of North Carolina at Chapel Hill, ²University of Virginia, ³University of Wisconsin-Madison

BACKGROUND AND AIM: Roughly twenty years of functional magnetic resonance imaging (fMRI) studies have investigated the neural correlates underlying engagement in social cognition (e.g., empathy, emotion perception) about targets spanning various social categories (e.g., race, gender). Yet findings from individual studies remain mixed. **METHODS:** In the present quantitative functional neuroimaging meta-analysis, we summarized across 50 fMRI studies of social cognition to identify consistent differences in neural activation as a function of whether the target of social cognition was an ingroup or outgroup member. We investigated if such differences varied according to social category (i.e., race) and social cognitive process (i.e., empathy, emotion perception). **RESULTS:** We found that social cognition about ingroup members was more reliably related to activity in brain regions associated with mentalizing (e.g., dmPFC), whereas social cognition about outgroup members was more reliably related to activity in regions associated with exogenous attention and salience (e.g., anterior insula). These findings replicated for studies specifically focused on the social category of race, and we further found intergroup differences in neural activation during empathy and emotion perception tasks. **CONCLUSIONS:** Our findings align with existing behavioral data and theories on intergroup social phenomena (e.g., ingroup favoritism, outgroup degradation) and help clarify how the brain gives rise to diverse social cognitive processes, which in turn may manifest as biased social behaviors in intergroup contexts. We hope this work can help guide future research and interventions that address intergroup behavioral dynamics.

S1.3 Avoidance begets avoidance: A computational account of negative stereotype persistence

Suraiya Allidina¹, William Cunningham¹

¹University of Toronto

BACKGROUND AND AIM: Stereotypes are pervasive, resistant to change, and commonly held even by those with self-professed egalitarian values. We propose that basic features of the learning process, when applied in the context of the complex social world, are at least partly to blame. Focusing specifically on avoidance, in this talk I will discuss how avoiding people based on their group membership can lead to the perpetuation of inaccurate negative stereotypes that were formed based on first impressions. We test two ways in which avoidance can perpetuate stereotypes. First, when information gain is contingent on approaching the target, avoidance may restrict the information available with which to update one's beliefs. Second, avoidance may be directly self-reinforcing, such that initial avoidance of group members increases the probability of later acts of avoidance towards that group. **METHODS:** In a series of studies, we had participants learn about two groups of aliens who differed primarily in their skin colour. On each trial, participants chose to approach or avoid an alien, who could either help or hurt the participant if approached. In one condition, participants received feedback about the aliens' behaviour only if they chose to approach, while in another they received feedback regardless of their choice to approach or avoid. The two groups differed in rates of cooperation at the beginning of task, but over time previous members were replaced by new ones, such that by the end the two groups cooperated at equal rates. We then applied reinforcement learning models to the data from these behavioural experiments to test the idea that avoidance has self-reinforcing effects. **RESULTS:** We found that when the two groups underwent large changes in their rates of cooperation, participants were better able to update their beliefs in the full feedback condition compared to the approach-contingent feedback condition. Further, we found that reinforcement learning models in which avoiding an alien reinforces the negative value associated with them (despite the lack of any actual information about the alien) provided the best fit to the data. **CONCLUSIONS:** These studies demonstrate that initial avoidance of a social group can perpetuate inaccurate negative beliefs and expectations about those groups. We find that avoidance contributes to stereotype

maintenance both by preventing people from gaining the information necessary to update their beliefs and by directly reinforcing future avoidance behaviours. These findings suggest that initial negative interactions with a group may have compounding effects on overall impressions, with implications for stereotype reduction. **ACKNOWLEDGEMENTS AND FUNDING:** This work was funded by Social Sciences and Humanities Research Council (SSHRC) Grant 506547 to William A. Cunningham and a SSHRC Doctoral Fellowship to Suraiya Allidina

S1.4 Mere group membership does not influence the N170 response to faces: Results from two preregistered ERP studies

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BACKGROUND AND AIM: A socially consequential test of the cognitive penetrability of visual perception is whether merely sharing a group membership with another person influences how you encode their face. Past research has examined this issue by manipulating group membership with techniques from social psychology and then measuring the face-sensitive N170 ERP with EEG. However, methodological differences across studies make it difficult to draw conclusions from this literature. In our research, we address how critical methodological decisions could influence conclusions about top-down effects of group membership on face perception. **METHODS:** We conducted two large-scale, preregistered ERP studies. Specifically, we examined how mere group membership, perceptual markers that signify group membership, number of trials included in the study design, the racial/ethnic identity of face stimuli, and the data analytic approach influence the N170 response to faces. **RESULTS:** In Study 1, we find no evidence that mere group membership alone significantly influences N170 responses to faces. However, we find that the background color used to signify group membership modulates the magnitude and latency of the N170 response. In Study 2, we dissociate background color from face encoding by presenting background color before the faces. In this second study, we no longer find a background color effect on the N170 response to faces. We still find no evidence of a mere group membership effect on the N170. **CONCLUSIONS:** Our results do not support claims that top-down social categorization affects visual perception of faces and show how bottom-up indicators of group membership can bias face encoding. Given that studies commonly use low-level visual cues (e.g., background color) to distinguish minimal ingroup from outgroup, we recommend that social neuroscience researchers who study intergroup face processing carefully counterbalance and model visual indicators of group membership to ensure that they properly interpret their findings.

Symposium #2: Translational Social Affective Neuroscience

S2.1 The Nature and the Neurobiology of Anxiety

Alexander Shackman¹

¹University of Maryland

BACKGROUND AND AIM: Anxiety is widely conceptualized as a sustained state of elevated distress and arousal elicited by uncertain danger. When expressed too intensely or in inappropriate contexts, anxiety can become debilitating and contribute to the development of depression and substance abuse. These illnesses impose a staggering burden on patients, public health, and the global economy. Existing treatments are inconsistently effective or associated with adverse effects, underscoring the urgency of developing a deeper understanding of the mechanisms controlling the expression and experience of anxiety.

METHODS: Here, I will highlight data gleaned from studies of adults, children, and monkeys. Using a combination of approaches --from genetic assays and machine learning to smartphone digital phenotyping and multimodal neuroimaging--this work provides fresh insights into the nature and the neurobiology of anxiety-related states, traits, and diseases. **RESULTS:** In particular, our work highlights the importance of a distributed neural system encompassing the central extended amygdala, periaqueductal gray, anterior insula, and midcingulate cortex. **CONCLUSIONS:** These observations provide an integrative framework for conceptualizing anxiety, and for guiding the development of improved intervention strategies. **ACKNOWLEDGEMENTS AND FUNDING:** This work was supported by the NIMH (MH121409, MH107444, MH125370) and University of Maryland.

S2.2 The Neurobiology of Adult Caregiving

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¹Emory University

BACKGROUND AND AIM: More than 16 million Americans provide unpaid care for dementia patients. Caring for patients with dementia is highly stressful, and is associated with a variety of negative mental health outcomes, including depression and anxiety. While the neurobiology of parental caregiving has been thoroughly investigated, nothing is known about the neurobiology of adult caregiving. We hypothesized that adult caregivers of dementia patients would recruit neural systems that are involved in parental caregiving when viewing photographs of their patient. **METHODS:** We recruited 20 caregivers (n=17 female, mean age = 54.5 +/- 9.6 years) of adult dementia patients and imaged their brain function with fMRI as they viewed photographs of their patient, a friend and an unknown adult of the same sex and similar age as the patient. **RESULTS:** Compared with the unknown patient, viewing patient photographs activated brain areas that have been linked with core aspects of parental care, including emotional empathy (dorsal anterior cingulate, anterior insula), cognitive empathy (dorsomedial prefrontal cortex and temporo-parietal junction) and reward and motivation (substantia nigra/VTa, nucleus accumbens, and caudate nucleus). The contrast between the own patient and the friend controlled for familiarity and yielded stronger activation to the patient

primarily within regions implicated in emotional empathy (dorsal anterior cingulate and anterior insula) and reward and motivation (substantia nigra/NTA and caudate nucleus). Caregivers also completed a number of questionnaires to determine if their mental health status modulated their neural response to their patient. Both perceived stress and depressive symptomology were robustly positively correlated with activation in the lateral orbitofrontal cortex, a region implicated in depression and activated by punishing stimuli. Finally, caregiver brain function was compared with brain function in a sample of grandmothers of similar age as the caregivers. When grandmothers viewed photographs of their grandchildren compared with an unknown grandchild, they activated all of the same parental brain regions that were activated in caregivers when they viewed pictures of their patient. However, grandmothers more strongly activated both the nucleus accumbens and caudate nucleus than did caregivers. This suggests that grandchildren may more effectively activate the reward and motivation systems of adult brains. **CONCLUSIONS:** Adult caregiving seems to rely on neural systems that are also involved in parental caregiving and these activations are modulated by caregiver stress and depressive symptomatology. **ACKNOWLEDGEMENT AND FUNDING:** Supported by the Emory Roybal Center for Dementia Caregiving, the Emory University Alzheimer's Disease Research Center, and the Emory Center for Health in Aging.

S2.3 Overlearning from Small Prediction Errors Drives Inaccurate Real-World Expectations in Individuals with Heightened Negative Emotionality

Aaron Heller¹

¹University of Miami

BACKGROUND AND AIM: In uncertain contexts, organisms learn from surprising events (i.e., prediction errors [PEs]) to more accurately predict future outcomes. Laboratory-based work demonstrates that over hundreds of consecutive trials, humans use PEs to adjust future expectations, and recent work suggests that variation in this PE learning process is linked to internalizing psychopathology. Yet, it is unclear whether variation in PE learning is a symptom or a risk factor for psychopathology, and whether learning mechanisms identified in the laboratory generalize to real-world settings. **METHODS:** We used experience sampling to assess 740 college students' expectations in a highly meaningful, naturalistic context: receiving exam grades. **RESULTS:** We demonstrate that individuals learned to predict grades more accurately after just four exams by updating their expectations for future exams in accordance with grade PEs. Moreover, while individuals with elevated neuroticism, a personality domain that predicts risk for depression and anxiety disorders, learned more quickly from both small ('small-misses') and negative PEs. This tendency to overlearn from PEs led to more inaccurate expectations. **CONCLUSIONS:** We provide novel evidence of PE-based learning in real-world, high-stakes contexts that can be observed over just a handful of trials. Moreover, in aggregate, individuals displayed greater updating to positive PEs compared to negative PEs. However, individuals with a personality phenotype linked to the development of depression and anxiety display more reactive, overlearning from small surprises leading them to be more inaccurate in their expectations. Given such a diathesis, a lifetime of overlearning from small negative PEs could lead a person to develop a pessimistic outlook and may manifest in anxiety or depression.

S2.4 Humans use vmPFC-dependent forward thinking to exploit social controllability

Xiaosi Gu¹

¹Icahn School of Medicine at Mount Sinai

The controllability of our social environment has a profound impact on our behavior and mental health. Nevertheless, neuro-computational mechanisms underlying social controllability remain elusive. In this talk, I will discuss recent findings supporting a role of the ventromedial prefrontal cortex (vmPFC) in implementing social forward thinking and exploiting the controllability of social environments. These findings expand the role of vmPFC beyond value encoding and spatial and cognitive mapping in non-social contexts. The breakdown of this vmPFC-supported mechanism could lead to social deficits observed in psychiatric disorders.

Symposium #3: Social Networks and Real-World Interaction

S3.1 Regulation of social hierarchy learning by serotonin transporter availability

Rémi Janet¹, Romain Ligneul², Annabel Losecaat Vermeer³, Rémi Philippe¹, Edmund Derrington¹, Soyoung Q. Park⁴, Jean-Claude Dreher¹

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BACKGROUND AND AIM: Learning one's status in a group is a fundamental process in building social hierarchies. Although animal studies suggest that serotonin (5-HT) signaling modulates social hierarchy learning, direct evidence in humans is lacking. Here, we investigated the link between inter-individual brain activity during social dominance hierarchy learning and serotonin transporter (SERT) availability, the latter providing an indirect measure of serotonergic functions. **METHODS:** To investigate the link between inter-individual brain activity and SERT availability we used a reinforcement-learning (RL) computational modeling and simultaneous [11C]-DASB PET-fMRI acquisition in the same subjects (N=30). We induced an implicit dominance hierarchy while participants learned the skills of opponents in a competitive game. On every trial, subjects were required to choose between two opponents among three, before competing against the chosen opponent. Unbeknownst to the subjects, outcomes

were manipulated to produce three different probabilities of winning (28%, 50%, or 72% of victories). To assess the specificity of the link between brain activity and SERT availability during social learning, subjects also performed a similar non-social version of the task. Here, subjects were similarly required to choose between slot machines instead of opponents. Reward probabilities were identical in the social and non-social tasks. **RESULTS:** We observed that SERT levels in the DRN are linked to striatal computations of social status while learning social ranks. Individuals with higher SERT levels in the DRN showed reduced ventral striatum activity associated with the computation of the social dominance status of the opponent while learning social ranks. In contrast, no such relationship was observed during the non-social task, and the strength of the relationship between BOLD striatal signal and SERT levels in the DRN differed between the social and non-social learning conditions. **CONCLUSIONS:** These findings characterize the interactions between DRN 5-HT function and the brain system engaged in social dominance hierarchy learning in humans and indicate a specific role of 5-HT signaling in modulating the learning of social dominance relationships.

ACKNOWLEDGMENTS AND FUNDING: This research has benefited from the financial support of IDEXLYON from Université de Lyon (project INDEPTH) within the Programme Investissements d'Avenir (ANR-16-IDEX-0005) and of the LABEX CORTEX (ANR-11-LABX-0042) of Université de Lyon, within the program Investissements d'Avenir (ANR-11-IDEX-007) operated by the French National Research Agency. This work was also supported by grants from the Agence Nationale pour la Recherche and NSF in the CRCNS program to JCD (ANR n°16-NEUC-0003-01).

S3.2 Map Making: Constructing, integrating, and inferring on cognitive maps of social hierarchies

Erie Boorman¹

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BACKGROUND AND AIM: Recent findings suggest the hippocampal-entorhinal (HPC-ERC) system may serve a general mechanism for representing and navigating cognitive maps of non-spatial tasks. However, it is unclear whether this system, and interconnected cortical regions, use the same principles to guide inferences social inferences during decisions - such as with whom to collaborate. **METHODS:** Participants first separately learned the rank of neighboring people on each of two social dimensions-popularity and competence-in two separate groups. Next, they learned the relative rank of select individuals ("hubs") between groups, creating a unique comparison between groups. Finally, they made inferences about the rank of novel pairs between groups during fMRI. **RESULTS:** Reaction times and BOLD activity in ERC and vmPFC during decisions depended on the Euclidian distance to the latent hub. FMRI suppression further revealed the hub was reinstated in HPC during decisions to guide inferences. Finally, pattern similarity analyses showed that more proximal people (Euclidian distance) in the true 2-D space were represented progressively more similarly in HPC, ERC, and OFC, consistent with a reconstructed cognitive map of the 2-D social hierarchy. Study 2 investigated the neural code that might underpin decisions about individuals in the social network. Participants were asked to choose the better partner between two for a given entrepreneur by comparing their 'growth potentials' (GPs). The ERC, mPFC, TPJ, and STS displayed grid-like coding of inferred trajectories between entrepreneurs over the social space. Finally, the GPs were encoded in overlapping mPFC and TPJ, and these effects were modulated by the grid-like code. **CONCLUSIONS:** Our findings show that a grid-like code in the human brain is extended to encode inferred direct trajectories over an abstract and discrete social space during decision making, which may suggest a general mechanism for how the brain makes social inferences based on a cognitive map.

S3.3 The social landscape: navigating social interactions

Matthew Schafer¹, Philip Kamilar-Britt¹, Vyoma Sahani¹, Scott Moeller², Vilma Gabbay³, Yasmin Hurd¹, Keren Bachi¹, Daniela Schiller¹

¹Mount Sinai School of Medicine, ²Stony Brook University, ³Albert Einstein School of Medicine

BACKGROUND AND AIM: Adaptively navigating our social worlds depends on social mapping: the organization of multi-dimensional abstract social information. In particular, the hippocampus is implicated in tracking two-dimensional (2D) information about social relationships, akin to how it maps physical environments during spatial navigation. Here, we use a naturalistic choose-your-own-adventure interaction game to ask if during interactions 1) the hippocampus tracks other people like places in abstract social space and 2) if navigation-like behavior relates to real-world social networks. **METHODS:** In the game, participants interact with fictional characters to accomplish social goals (e.g., find a job). Unbeknownst to participants, the decisions they made with each character are modeled as trajectories through a 2D social "power" by "affiliation" space - the so-called "social navigation" of relationships. To study neural representations of these interactions, we analyzed the hippocampal patterns of two independent samples (n=18, n=31) during functional magnetic resonance imaging (fMRI). To study the relationship between navigation-like behavior in this game and real-world social behavior, we also analyzed two independent online samples (n=697, n=290). **RESULTS:** In both of our fMRI samples, complementary encoding and decoding found place-like representations in hippocampal patterns. The effects were specific to the hippocampus, and were not explained by other measures of task behavior, task-based social information (character identity or familiarity) or structure (narrative scene changes), temporal drift, behavioral biases in the game, or demographic variables (age and sex). In our two online samples, 2D "social distancing" behavior positively correlated both with a self-reported social avoidance factor and with the size and types of real-world social networks. These behavioral results were also robust to a variety of controls (e.g., demographics, self-perceived social status, other models of the behavior). **CONCLUSIONS:** These results suggest that the hippocampus tracks people like social places during social interactions in a simulated social environment - similar to how it tracks physical places during spatial navigation. Behaviors associated with this tracking are also implicated in self-reported social avoidance and social networks -

suggesting the behaviors in this game are relevant to the real-world. Future work should investigate how these spatial navigation-like computations are used to guide real-world social function and dysfunction. **ACKNOWLEDGEMENTS AND FUNDING:** NIDA K23-DA045928

S3.4 Shared understanding promotes social connection: neural and behavioral evidence

Elisa Baek¹, Ryan Hyon¹, Karina Lopez¹, Mason Porter¹, Carolyn Parkinson¹

¹University of California, Los Angeles

Forging and maintaining meaningful social connections is critical to mental and physical well-being. What are the psychological and neural factors that support our efforts to initiate and maintain social ties? In this talk, I present findings from two studies that use neuroimaging and social network analysis to study what distinguishes individuals who experience varying levels of objective and subjective social connection. In the first study, we tested whether individuals who many people name as a friend (i.e., individuals with a large in-degree centrality, or highly central) in a social network exhibit more normative processing of naturalistic stimuli. We found that highly-central individuals had exceptionally similar responses to their peers and to one another when viewing complex, naturalistic stimuli-- particularly in subregions of the default mode network, where similar neural responses have been linked to similar subjective construals. By contrast, less-central individuals exhibited more idiosyncratic neural responses. Our findings suggest that well-connected individuals (i.e., who experience high objective social connection) process the world around them in a manner that is reflective of the norms of their communities, which may help them relate to a larger number of people. In the second study, we tested the associations between subjective perceptions of social connection and neural responses to ask whether individuals who experience high levels of self-reported loneliness see the world in idiosyncratic ways that may contribute to a lack of feeling understood that often accompanies loneliness. We found that loneliness was associated with idiosyncratic and dissimilar neural responses to one's peers during the viewing of naturalistic stimuli, particularly in regions of the default mode network where neural similarity has been associated with shared psychological perspectives and subjective understanding, as well as areas involved in reward processing. Our findings suggest that lonely people process the world around them dissimilarly to their peers, possibly contributing to the reduced sense of shared understanding that often accompanies loneliness. Further, our findings remained robust even after controlling for objective social connection, or the number of friends that participants had within the community, suggesting that being surrounded by people who see the world differently from oneself may be a risk factor for loneliness, even if one is friends with them. Taken together, these findings suggest that a shared sense of understanding of the world around us, as reflected in convergent neural processing across brains, plays a critical role in social connection.

Thursday, May 5

Symposium #4: Social Learning and Decision-Making

S4.1 Structure and influence in an interconnected world: neurocomputational mechanism of learning on social networks

Lusha Zhu¹, Yaomin Jiang¹, Qingtian Mi¹

¹Peking University

Many social species are embedded on social networks, including our own. The structure of social networks shapes our decisions by constraining what information we learn and from whom. But how does the brain incorporate social network structures into learning and decision-making processes, and how does learning in networked environments differ from learning from isolated partners? Combining a real-time distributed learning task with computational modeling, fMRI, and social network analysis, we investigated the process by which humans learn from observing others' decisions on 7-node networks with varying topological structures. We show that learning on social networks can be realized by means similar to the well-established reinforcement learning algorithm, supported by an action prediction error encoded in the lateral prefrontal cortex. Importantly, learning is flexibly weighted toward well-connected neighbors, according to activity in the dorsal anterior cingulate cortex, but only insofar as neighbors' actions vary in their informativeness. These data suggest a neurocomputational mechanism of network-dependent filtering on the sources of information, which may give rise to biased learning and the spread of misinformation in an interconnected society.

S4.2 Learning the consequences of our actions under moral conflict

Valeria Gazzola¹, Laura Fornari¹, Kalliopi Ioumpa¹, Alessandra Nostro¹, Nathan Evans², Lorenzo De Angelis¹, Sebastian Speer¹, Riccardo Paracampo¹, Selene Gallo¹, Michael Spezio³, Christian Keysers¹

¹Netherlands Institute for Neuroscience, ²University of Queensland, ³Scripps College

In our lives we often face situations in which actions we perform may benefit us at the expense of others. How we balance benefits for the self and the emotions of the others while learning the outcomes of new actions in morally conflicting situations, remains little understood. During my talk I will present a study in which we tested whether Reinforcement Learning Theory can capture how participants learn which actions generate more self-gain and other-pain, and how they adapt to changes in contingencies. If actions benefit the self and harm others, are these conflicting outcomes combined into a common valuational

representation, or do we track separate expectations for benefits to the self and harm to others? Motivated accounts of empathy suggest that if empathy is costly, people tend to downregulate empathy for it not to interfere with self-benefits. Would then people who maximize their gains suppress their empathy and fail to learn that the options that benefit the self also harm others? Or would they learn to represent both action-outcome contingencies equally well and nevertheless decide to maximize their own gain in full awareness of the pain they cause to others? In my talk, I will present a study showing that participants track expected values of self-gain and other-pain separately, with substantial individual difference in preference reflected in a valuation parameter balancing their relative weight. This valuation parameter also predicted choices in an independent costly helping task. However, the representations of self-gain and other-pain learned were biased toward the favored outcome. fMRI revealed this bias to be reflected in the ventromedial prefrontal cortex while the pain-observation network represented pain prediction errors independently of individual preferences.

S4.3 Damage to ventromedial prefrontal cortex decreases effortful prosocial behaviours

Jo Cutler¹, Matthew Apps¹, Daniel Drew², Deva Jeyaretna², Masud Husain², Sanjay Manohar², Patricia Lockwood¹

¹The University of Birmingham, ²University of Oxford

BACKGROUND AND AIM: Prosocial behaviours - actions that help others - have vital interpersonal and societal benefits. Most prosocial acts are effortful and require weighting of costs and benefits. Previous work has identified the ventromedial prefrontal cortex (vmPFC) as a key neural correlate of effort valuation and of prosocial behaviours. However, studies have often used imaging methods that cannot show a causal role of vmPFC in prosocial behaviour or tested small samples of lesion patients. **METHODS:** We assessed the impact of focal vmPFC damage on prosociality and dissociated it from general effort and reward sensitivity with an effort-based decision-making task where these factors are manipulated independently. Participants chose to rest (no effort) or 'work' (30-70% of their maximum grip strength) to earn reward either for themselves, or prosocially for another person. We compared a large group of patients with focal vmPFC lesions (n= 25, aged=37-76, 14 females), carefully matched to patients with lesions elsewhere (n=16, aged=28-74, 11 females), and healthy controls (n=40, aged=36-67, 23 females) on age, gender, and education. Taking a computational neurology approach, we used modelling to quantify how the required effort cost was integrated with rewards for self or other to determine the decision to work. **RESULTS:** Strikingly, patients with vmPFC damage showed decreased willingness to put in effort to help other people, compared to those with lesions elsewhere and healthy controls. This was shown by higher discounting of reward by effort (K) when decisions could benefit another person compared to decisions that could benefit them (Fig. 1a). Model-free analysis of choices also showed vmPFC damage decreased prosociality, whilst willingness to put in effort for self-benefitting choices was preserved (Fig. 1b). Lesions to vmPFC additionally altered sensitivity to effort overall, but not reward, compared to healthy controls (Fig. 1c). **CONCLUSIONS:** Our findings suggest a specific and causal role of vmPFC in prosocial behaviour, with damage to this region decreasing willingness to exert effort to gain rewards for others. This computational neurology approach could be key for understanding the causal role of specific brain areas in prosociality and decision making. **ACKNOWLEDGEMENTS AND FUNDING** This work was supported by a Medical Research Council Fellowship, a Jacobs Foundation Research Fellowship; a Christ Church Junior Research Fellowship and Research Centre Grant to PLL; a Clinician Scientist Fellowship and Leverhulme Research Grant to SM; a Biotechnology and Biological Sciences Research Council David Phillips Fellowship and Biosciences and Biotechnology Research Council Future Leader Fellowship to MAJA; Wellcome Trust Principal Fellowships to MH; and the National Institute for Health Research Biomedical Research Centre, Oxford, United Kingdom. We are also grateful to our colleagues who acted as the other participant during the study.

S4.4 Studying naturalistic social behavior and its neuronal underpinnings in monkeys and humans

Ziv Williams¹

¹Massachusetts General Hospital

Social groups play a foundational role in the behavior of many animal species. During group interactions, an individual's behavior can affect not only the well-being of others but also how others respond in return. Therefore, representing both the identities of others as well as their specific intentions, actions and outcomes is necessary for the ability to interact successfully within groups. Yet understanding the neural processes that underlie the interactive behavior of groups or by which individuals form representations of others has remained a challenge. Here, we present two complementary sets of studies in monkeys and humans to begin investigating these processes. First, by tracking the interindividual dynamics of groups of three interacting rhesus macaques, we discover detailed representations of the groups' behavior by neurons in the dorsomedial prefrontal cortex, reflecting not only the other agents' identities but also their specific interactions, social context, actions, and outcomes. We show how these cells collectively represent the interaction between specific group members and their reciprocation, retaliation, and past behaviors. We also show how they influence the animals' own upcoming decisions and their ability to form beneficial agent-specific interactions. Together, these findings reveal prefrontal neurons that code for the agency identity of others and a cellular mechanism that could support the interactive behavior of social groups. Second, by using recordings from single cells in the human dorsomedial prefrontal cortex, we identify neurons that reliably encode information about others' beliefs across richly varying scenarios and that distinguish self- from other-belief-related representations. By further following their encoding dynamics, we show how these cells represent the contents of the others' beliefs and accurately predict whether they are true or false. We also show how they track inferred beliefs from another's specific perspective and how their activities relate to

behavioral performance. Together, these findings reveal a detailed cellular process in the human dorsomedial prefrontal cortex for representing another's beliefs and identify candidate neurons that could support theory of mind.

Symposium #5: Naturalistic fMRI Data Analysis Challenge

Organizers/presenters: James Thompson, George Mason University; Luke Chang, Dartmouth College; Mark Thornton, Dartmouth College

This symposium will present the outcomes of the inaugural Naturalistic fMRI Data Analysis Challenge. Naturalistic functional magnetic resonance imaging (fMRI) provides a unique opportunity to study the neural basis of social, cognitive, and affective processing. Data from naturalistic conditions are rich and dynamic, and present both an opportunity and a challenge to analysis methods. The data challenge was designed to allow the SANS community to demonstrate the application of new algorithms and models to naturalistic fMRI data, in order to shed new light on social and affective neural processing at the intra- and/or inter-subject level. In the symposium, the winners of the data challenge will be announced. We will cover how the winning submissions a) provided a novel/original approach; b) the connection between analysis approach and social and affective neuroscience theory/topics; and c) how the submissions addressed robustness/overfitting. We will also present an overview of the submissions, including some highlights from SANS community trainees. It is hoped that this symposium will help further encourage the development of a sustainable, inclusive computational community within SANS.

Friday, May 6

Symposium #6: Neuroscience of Narratives

S6.1 Neural signatures of narrative engagement

Monica Rosenberg¹, Hayoung Song¹, Emily Finn²

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Our attention fluctuates as we perceive narratives. What cognitive and neural processes underlie these changes in engagement? To address this question, I will first describe behavioral studies in which participants rated how engaged they were as they watched a television episode or listened to a story (Song, Finn, & Rosenberg, 2021). Results revealed that self-reported engagement was synchronized across individuals and driven by emotional narrative content. I will next present the results of analyses of two open-access fMRI datasets collected as other participants watched the same show or listened to the same story. In these data, engagement drove neural synchrony: activity in regions of the default mode network was more synchronized across individuals during more engaging moments of the narratives. Furthermore, models based on time-varying functional brain connectivity predicted changing engagement across individuals and datasets. The same functional connections that predicted engagement dynamics overlapped with an existing neuromarker of sustained attention and predicted recall of narrative events. Together this work characterizes the neural signatures of attention fluctuations during narratives and reveals relationships between narrative engagement, sustained attention, and event memory.

S6.2 Schema representations in distinct brain networks support narrative memory during encoding and retrieval

Christopher Baldassano¹, Rolando Masís-Obando², Kenneth Norman²

¹Columbia University, ²Princeton University

BACKGROUND AND AIM: Schematic prior knowledge of how events generally unfold can scaffold the construction of event memories during perception and also provide structured cues to guide memory search during retrieval. The goal of this study is to understand the neural mechanisms of how event schemas support memory for real-world, temporally extended events. **METHODS:** We measured the activation of story-specific and schematic representations using fMRI while participants were presented with 16 stories and then recalled each of the narratives, and related these activations to memory for specific story details. These stories (half audiovisual movies and half audio-only narratives) depicted characters either boarding a flight at an airport or eating at a restaurant. We then related the degree of story-specific and schematic representation at perception and retrieval to the number of correct episodic details freely recalled by each participant. **RESULTS:** We found that the activation of story-specific patterns at perception and retrieval was positively associated with later memory throughout the brain. Activating schematic representations in a subregion of anterior medial prefrontal cortex during perception predicted improved episodic recall, but schematic representations in regions such as posterior hippocampus were associated with lower recall performance. More generally, our analyses revealed largely distinct brain networks at encoding and retrieval in which schema activation was related to successful recall. **CONCLUSIONS:** These results provide new insight into when and where event knowledge can support narrative memory. **ACKNOWLEDGEMENTS AND FUNDING:** This work was supported by NIH R01MH112357 to KAN and the NINDS D-SPAN award F99 NS120644-01 to RMO.

S6.3 Beliefs about racial discrimination predict neural synchrony during viewing of a story of personal experience with discrimination

Timothy Broom¹, Dylan Wagner¹

¹The Ohio State University

In contemporary US society, there is widespread disagreement regarding the historical narrative of race and discrimination in America. In this study, we examined how these beliefs interact with perceptions of minority group members as they tell stories of their experiences with racial discrimination. Twenty-nine participants were scanned while viewing a video of a storyteller recounting a personal experience of racial discrimination, followed by a trait evaluation task in which the storyteller was the target of evaluation. Neural synchrony in the social brain during viewing of the story was associated with similarity in beliefs regarding race/discrimination in contemporary US society (i.e., Symbolic Racism). Neural synchrony during the story also predicted pairwise spatial similarity in participants' neural representations of the storyteller when recalling their impressions of her during the subsequent trait evaluation task. Finally, neural representations of the storyteller were associated with ratings of her traits/attributes that previous work highlights as central to perceptions of stereotyped groups (e.g., intelligence/competence). The results of the present study highlight the influence of beliefs related to broad historical/societal narratives on the perception of individuals, both during initial impression formation (i.e., neural synchrony) and during later retrieval of stored impressions (i.e., spatial pattern similarity).

S6.4 Deeper Than You Think: Partisanship-Dependent Brain Responses

Yaara Yeshurun¹

¹Tel-Aviv University

BACKGROUND AND AIM: Recent political polarization has highlighted the extent to which individuals with opposing partisan views experience ongoing events in markedly different ways. In this study, we explored the neural mechanisms underpinning this phenomenon. **METHODS:** We conducted functional magnetic resonance image (fMRI) scanning of thirty-four right- and left-wing participants watching political videos (e.g., campaign ads and political speeches) just before the 2019 elections in Israel. **RESULTS:** Behavioral results demonstrated significant differences between left- and right-wing participants in their interpretation of the videos' content. Neuroimaging results revealed partisanship-dependent differences in both high-order regions and early-motor and somato-sensory regions, and suggested that right-wing individuals use sensorimotor simulative representation to process political content. Importantly, no such differences were found with respect to neutral content. Using inter-subject representation similarity analysis (IS-RSA), we found a synchronization pattern that was striking in its dichotomy: in three out of the four political clips, similarity in right-wing views (but not in left-wing views) resulted in synchronized responses in many different brain regions; while in the fourth clip, synchronization emerged only for participants with similar left-wing views. Moreover, in contrast to prior work, this synchronization was also observed in early visual and auditory cortices. **CONCLUSIONS:** Therefore, these results suggest that political polarization is not limited to higher-order processes as previously thought, but rather emerges already in motor and sensory regions.

Symposium #7: Social Connection

S7.1 The Parent-Infant Social Connection: A Dyadic Neuroscience Perspective

Victoria Leong¹

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During early life, temporally-coordinated social interactions between infants and caregivers are an important driver for attunement and a powerful stimulant for social learning. Yet current neuroscience frameworks do not address how social interactive behaviour potentiates connection and effective learning in the infant brain. Recent evidence suggests that human infants are capable of spontaneous neural synchronisation with adults during social interaction, and levels of parent-infant neural synchronisation predict communicative efficacy and social learning. In this talk, I will present a dyadic neuroscience perspective for understanding how parents use 'Natural Pedagogy', enacted through ostensive signals such as eye contact and infant-directed speech, to attune fine-grained neural oscillatory processes between themselves and their children, creating synchronised brain states for learning. I will further discuss how positive and playful interactions afford optimal opportunities for the emergence of synchronised behaviour and brain activity, thereby potentiating early social connection and learning.

S7.2 Social connection in primates: from behavior to neurons

Camille Testard¹, Jérôme Sallet², Lauren Brent³, Michael Platt¹

¹University of Pennsylvania, ²INSERM, ³Exeter University

Social distancing measures implemented to slow the spread of COVID-19 have triggered a worldwide craving for social contact, leading to surges in anxiety and depression. This social desire is deeply rooted in our evolutionary history: most of our closest nonhuman primate relatives live in groups in which they form differentiated relationships with conspecifics. After a devastating hurricane destroyed over 60% of the vegetation on a small Caribbean island, instead of being more competitive, resident rhesus macaques became more tolerant of each other, less aggressive, and expanded their social networks. However, some monkeys increased their social connectedness by a lot - leading to better chances of survival almost 5 years after the storm - while others did not. What are the neurobiological underpinnings of macaques' ability to flexibly adjust their social connectedness when

needed? In this same free-ranging rhesus macaque population, we found that the number of social connections individuals maintained before the storm predicted the volume of the specific structures -the mid-superior temporal sulcus and ventral-dysgranular insula- implicated in social decision-making and empathy, respectively. Moreover, single-unit recordings in anatomically connected areas to the mSTS in freely-moving, socially-interacting rhesus macaques demonstrate that neural ensembles carry information about species-typical social stimuli, behavior, and contexts required for success in the wild.

S7.3 Effects of isolation on adolescent cognition

Livia Tomova¹, Emily Towner¹, Kirsten Thomas¹, Sarah-Jayne Blakemore¹

¹*University of Cambridge*

Loneliness and isolation are increasing in societies all around the world, particularly in young people (Hammond 2019, Twenge 2019). Animal research has consistently shown that a lack of social interaction leads to increased reward sensitivity, higher anxiety and inflexibility during learning - particularly during adolescence (Tomova et al. 2019, Orben et al. 2020). Yet, it is unclear how well results from animal models of isolation can be translated to humans. Do social isolation and loneliness in human adolescents cause similar modulations in brain function and cognition? Previous research in adult humans has shown that acute loneliness affects brain functioning in a similar level as food craving after fasting (Tomova et al. 2020). Here, we assessed how short-term isolation of 3-4 hours affects feelings of loneliness and behavioural measures of reward processing (including reward responsiveness and reward learning) and fear learning in adolescents aged 16-19 years. We also assessed whether access to virtual social interactions mitigates the effects of isolation. We find that short-term isolation affects self-reported feelings of loneliness, reward processing and fear learning in adolescents. Access to virtual social interactions remediates some, but not all effects of isolation. The implications of this research in the light of adolescent loneliness and mental health problems will be discussed.

S7.4 How the immune system regulates social experience

Naomi Eisenberger¹

¹*UCLA*

Emerging evidence has shown that, in addition to contributing to negative physical health outcomes, inflammation can also contribute to negative mental health outcomes, particularly depression. Specifically, treatments that stimulate the immune system can increase risk for depression, individuals with depression have elevated levels of proinflammatory cytokines, and experimentally stimulating inflammatory processes can increase depressed mood in otherwise healthy subjects. Still, relatively little is known about how inflammation alters social experience, which could play an important role in inflammatory-induced depression. Given that inflammation promotes social withdrawal, and that social disconnection is a risk factor for depression, examining the effect of inflammation on social experience may be critical for understanding inflammatory-induced depression. This talk will examine the effect of inflammation on sensitivity to social and affective experience from a number of different angles. Specifically, this talk will examine the specific, and sometimes surprising ways, in which inflammation affects both positive and negative experiences that are social or non-social in nature. This talk will also explore gender differences in the effects of inflammation on these experiences. Findings will reveal the intricate ways in which the immune system communicates with the brain to alter sensitivity to the social world.

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Titles, Authors and Affiliations

Poster Session #1

Wednesday, May 4 | 12:15pm - 1:45pm ET

A - Decision-Making

1-A-11 Testing major norms of reasoning for freer creativity using functional near-infrared spectroscopy (fNIRS)

Paul Hangsan Ahn¹, Xin Zhou², Sewon Oh³, Lyn van Swol⁴, Christopher Cascio⁴, Sang Ah Lee⁵, Matthew Minich⁴, Paul Paulus⁶

¹University of Wisconsin-Madison, ²The Chinese University of Hong Kong, ³University of South Carolina, ⁴The University of Wisconsin-Madison, ⁵Seoul National University, ⁶University of Texas-Arlington

1-A-15 Uncertainty in the mentalizing network: Dorsal medial prefrontal cortex activation tracks with the level of uncertainty across mental and nonmental inferences

Dilara Berkay¹, Adrianna Jenkins¹

¹University of Pennsylvania

1-A-16 The Neural Representation of Spontaneous Counterfactual Thought

Regan Bernhard¹, Fiery Cushman², Jonathan Phillips¹

¹Dartmouth College, ²Harvard University

1-A-26 Cognitive flexibility judgements for affective and non-affective stimuli

Alex Douma¹, Ajay Satpute Ph.D.², Katrina Nguyen¹, Cameron Tovin¹, Julia Hryckowian¹, Aaron Heller Ph.D.¹, Lucina Q. Uddin Ph.D.³, Jason Nomi Ph.D.³

¹Department of Psychology, University of Miami,

²Department of Psychology, Northeastern University,

³Harvard University

1-A-47 Reference-Dependent Impressions Bias Social Decision-Making

Peter Mende-Siedlecki¹, Leor Hackel²

¹University of Delaware, ²University of Southern California

1-A-52 I'll be there for you?: Differences between Explicit and Implicit Motivation to Engage Cognitive Control for Oneself and Others

Mahalia Prater Fahey¹, Alice Bai¹, Amitai Shenhav¹

¹Brown University

1-A-54 Electrophysiological Correlates of Social Motivation in Neurotypical Adults

Rebecca Revilla¹, Nicole Friedman¹, Caitlin Hudac¹

¹University of Alabama

1-A-55 Neural responses underlying extraordinary altruists' high subjective valuation of others' welfare

Shawn Rhoads¹, Katherine O'Connell¹, Kathryn Berluti¹, Montana Ploe¹, Hannah Elizabeth¹, Mary Dutton¹, Rebecca Ryan¹, John VanMeter¹, Abigail Marsh¹

¹Georgetown University

1-A-56 Visual Cues of Trustworthiness: Unique Effects of Social vs. Nonsocial Cues on Trust-related Behavior and Memory

Jordan Schotz¹, Nichole Lighthall¹, Natalie Ebner²

¹University of Central Florida, ²University of Florida

1-A-57 Integration of value and motivational state in the reward positivity.

Lindsay Shaffer¹, Holly Crowder¹, Lam Duong¹, James Thompson¹

¹George Mason University

1-A-58 Dissociable representations of affective and informative properties in the dorsal striatum

Xinxu Shen¹, Kainan Wang², Vishnu Murty¹, David Smith¹

¹Temple University, ²Rutgers University

1-A-61 Aggression Against Oneself Evokes Greater Evaluations of Praiseworthiness for Retaliation on Behalf of Strangers vs Friends: Exploring Judgments about Vengeance in a Shifting Social Context

Catherine Stevenson¹, Kimberly Meidenbauer¹, Kyoung Whan Choe¹, Marc Berman¹

¹University of Chicago

1-A-62 Selective devaluation of identity-specific representations of social rewards

James Thompson¹

¹George Mason University

1-A-65 Alcohol use is associated with enhanced corticostriatal connectivity with precuneus during the receipt of social reward

James Wyngaarden¹, Camille Johnston¹, Daniel Sazhin¹, Jeffrey Dennison¹, Athena Vafiadis¹, Ori Zaff¹, Neriah Kahn¹, Makayla Collins¹, Amanda Nguyen¹, Dominic Fareri², Michael McCloskey¹, Lauren Alloy¹, David Smith¹, Johanna Jarcho¹

¹Temple University, ²Adelphi University

1-A-69 Self-control costs are sensitive to temptation intensity, risk and ambiguity

★ Candace Raio¹, Paul Glimcher¹

¹New York University School of Medicine

1-A-71 Amygdala contributions to motivational biases in perceptual decision-making

★ Ren Paterson¹, Yizhou Lyu¹, Yuan Chang Leong¹

¹University of Chicago

B - Intergroup Processes

1-B-22 Psychological and neural representations of political attitudes, opinions, and facts

Joshua Cetron¹, Jacob Blair¹, Mina Cikara¹

¹Harvard University

1-B-48 Racial biases in neural representation underlying object identification

DongWon Oh¹, Henna Vartiainen¹, David Amodio², Jonathan Freeman¹

¹Columbia University, ²University of Amsterdam/New York University

1-B-70 The posterior cerebellum is recruited in when processing social relationship knowledge

★ Haroon Popal¹, Yin Wang², Katie Jobson¹, Mark Thornton³, Ingrid Olson¹

¹Temple University, ²Beijing Normal University,

³Dartmouth College

C - Basic Affect/Emotion

1-C-21 Overestimating stress experienced early during the Covid-19 pandemic is associated with decreased emotional well-being

Juan Castillo¹, Haoxue Fan¹, Olivia Karaman¹, Jocelyn Shu¹, Yoann Stussi², Alexandra Kredlow¹, Sophia Vranos¹, Javiera Oyarzun¹, Hayley Dorfman¹, Deshawn Sambrano¹, Elizabeth Phelps¹

¹Harvard University, ²University of Geneva

1-C-23 Predicting aggressive behaviors in childhood and early adolescence with the socioecological approach: From neighborhoods, parents to the brain.

Ya-Yun Chen¹, Marx Wang¹, Tai-Jung Chen¹, Tae-Ho Lee¹

¹Virginia Tech

1-C-38 Collective Empathy Modulates Neural Synchrony

Siddhant Iyer¹, Eleanor Collier², Meghan Meyer¹

¹Dartmouth College, ²University of California, Riverside

1-C-40 Recovering individual emotional states from sparse ratings using collaborative filtering

Eshin Jolly¹, Max Farrens¹, Nathan Greenstein¹, Hedwig Eisenbarth², ★ Marianne Reddan³, Eric Andrews¹, Tor Wager¹, Luke Chang¹

¹Dartmouth College, ²Victoria University of Wellington,

³Stanford University

1-C-59 Mothers Stress During COVID-19 Pandemic Effects Child Fear in Kids with Developmental Disabilities

Sheow Yun Sie¹, Reena Maharaj¹, Emily Nelson¹, Johnny Lopez¹, Catherine Heitz¹, Yoko Nomura¹

¹Queens College CUNY

1-C-63 The Interplay between Episodic Memory and Empathy

Marius Vollberg¹, Brendan Gaesser², Mina Cikara¹

¹Harvard University, ²SUNY Albany

1-C-66 Capturing thought dynamics and state changes in mindfulness: A Markov Chain model

Winson Fu Zun Yang¹, Miranda Scolari¹

¹Texas Tech University

D - Emotion Regulation

1-D-19 Examining Self-Regulation in Individuals who Smoke and Experience Depression

Morgan Brucks¹, Andrew Fox², Vlad Papa¹, Delwyn Catley², Kimber Richter¹, Edward Ellerbeck¹, Laura Martin¹

¹University of Kansas Medical Center, ²Children's Mercy Kansas City

1-D-24 Investigating Steady-State Visually Evoked Potentials as a Biosignature for Anxiety-Related Attention Bias

Elizabeth Davis¹, Milana Khaitova¹, Kristi Lise¹, Tracy Dennis-Tiwary¹

¹City University of New York (CUNY)

1-D-25 Exploring the interaction between emotion regulation and inflammation on changes in episodic memory in older adults

Eva Dicker¹, Stephanie Leal¹, Chris Fagundes¹, Bryan Denny¹

¹Rice University

1-D-34 Perceived Stress Moderates Emotion Regulation Success in Real-World Contexts

Pauline Goodson¹, Richard Lopez², Bryan Denny¹

¹Rice University, ²Bard College

1-D-53 Cognitive emotion regulation use predicts COVID-related stress resilience

★ Candace Raio¹, Aysu Secmen², Alexandra Mellis¹

¹New York University School of Medicine, ²New York University

1-D-91 Unpacking cognitive reappraisal: A meta-analysis of neuroimaging studies of psychological distancing and reinterpretation

Mallory Jungles¹, Bryan Denny¹, Richard Lopez², Julia Chavez³, Pauline Goodson¹, Eva Dicker¹, Jenna Jones⁴

¹Rice University, ²Bard College, ³University of Chicago Pritzker School of Medicine, ⁴University of Colorado Boulder

E - Clinical Disorders

1-E-12 Is the brain's mentalizing system atypical in autism? Assessing explicit versus spontaneous mentalizing with a socially interactive fMRI task

Junaid Merchant¹, Heather Yarger¹, Elizabeth Redcay¹

¹University of Maryland, College Park

1-E-30 Grasping social concepts in naturalistic texts: A multidimensional framework for neurodegenerative diseases

Adolfo García¹

¹Universidad de San Andrés

F - Social Cognition

1-F-10 Politics goes mental: Neural differences in empathy between rightists and leftists during a mentalizing task

Eli Adler¹, Niloufar Zebarjadi¹, Annika Kluge¹,

Jonathan Levy¹

¹Aalto University

1-F-13 Neural predictors of sensitivity to distinct social inferences during altruistic choice

Lisa Bas¹, Ian Roberts², Cendri Hutcherson², Anita Tuschke¹

¹Queen's University, ²University of Toronto

1-F-14 Longitudinal analysis of executive function and social skills in adolescents

Eliya Ben-Asher¹, Blaire Porter¹, Mary Abbe Roe¹, Mackenzie Mitchell², Jessica Church¹

¹University of Texas at Austin, ²University of North Carolina at Chapel Hill

1-F-17 Self-representations across time become indistinguishable with distance from the present

Sasha Brietzke¹, Meghan Meyer¹

¹Dartmouth College

1-F-18 Individual differences in functional brain connectivity are associated with social attention abilities and autistic traits

Samantha Brindley¹, Meghan Puglia¹, James Morris¹

¹University of Virginia

1-F-27 Neural sensitivity to social reward predicts social behavior and satisfaction in adolescents during the COVID-19 pandemic

Sarah Dziura¹, Kathryn McNaughton¹, Elizabeth Giacobbe¹, Heather Yarger¹, Alexandra Hickey², Deena Shariq¹, Elizabeth Redcay¹

¹University of Maryland, College Park, ²University of South Carolina

1-F-28 When Do Latin Americans form Dispositional Attributions? Self-report and Neural Evidence

Natalia Espinosa¹, Cristina Salvador¹

¹Duke University

1-F-29 The effect of socioeconomic status on cognitive and socioemotional processes in older adults

Sol Fittipaldi¹, Joaquín Migeot², Mariela Calivar³, Hugo Granchetti⁴, Agustín Ibanez⁵

¹Universidad de San Andrés, ²Universidad Adolfo Ibáñez,

³Centro de atención Primaria de la salud Zonda,

⁴Universidad de Buenos Aires, ⁵Global Brain Health Institute

1-F-31 Reflexive Self Focus: MPFC Activation During Brief Rest Nudges Self-Centered Thought

Danika Geisler¹, Meghan Meyer¹

¹Dartmouth College

1-F-35 Relations between neural response to social feedback and internalizing outcomes in adolescents during the Covid-19 pandemic

Aditi Hosangadi¹, Sarah Dziura¹, Diana Alkire¹, Elizabeth Redcay¹

¹University of Maryland, College Park

1-F-36 Precision mapping of the default network reveals common and distinct (inter)activity for autobiographical memory and theory of mind

Colleen Hughes¹, Roni Setton², Laetitia Mwilambe-

Tshilobo¹, Giulia Baracchini¹, Gary Turner³, Nathan Spreng¹

¹Montreal Neurological Institute, ²Harvard University, ³York University

1-F-37 AR Tangram + Muse EEG: A New Hyperscanning Paradigm For Studying Shared Neural Responses During Naturalistic Tasks

Richard Huskey¹, Jorge Peña¹, Xuanjun (Jason) Gong¹,

William Weisman¹, Tsepten (Teaden) Gurung¹,

Taylor David¹, Mercedes Ross¹, Valerie Klein¹,

Ralf Schmälzle², Jeffrey T. Hancock³

¹University of California, Davis, ²Michigan State University, ³Stanford

1-F-39 Evidence the Default Network Prioritizes Social Learning at Rest

Courtney Jimenez¹, Meghan Meyer¹

¹Dartmouth College

1-F-41 Impaired empathic accuracy following damage to the left hemisphere.

Karine Jospe¹, Shir Genzer¹, Lihi Mansano², Desmond Ong³, Jamil Zaki⁴, Nachum Soroker², Anat Perry¹

¹Hebrew University of Jerusalem, ²Lowenstein Rehabilitation Medical Center, ³National University of Singapore, ⁴Stanford University

1-F-43 Neural correlates of smile authenticity judgments and the modulatory role of the oxytocin receptor gene (OXTR)

Minwoo Lee¹, Adriana Lori¹, Nicole Langford¹, James Rilling¹

¹Emory University

1-F-45 Linking inferences of traits and mental states: evidence for bidirectional causation

Chujun Lin¹, Mark Thornton¹

¹Dartmouth College

1-F-49 Examining the relationship between chronotype, social behaviours in the workplace, and extraversion

Nick Oyer¹, Sara Driskell²

¹None, ²Auburn University

1-F-50 Culture, theory-of-mind, and morality: How theory-of-mind region explains cultural shaping of moral judgments

BoKyung Park¹, Uan-Luen Hsieh¹, Valerie Smith¹

¹University of Texas at Dallas

1-F-51 The influence of puberty and age on brain functioning during a social observation fMRI task

Andrea Pelletier-Baldelli¹, Sophia Martin¹, Leah Somerville², Margaret Sheridan¹, Christopher Urban¹, Kinjal Patel¹, Matthew Gilletta³, Paul Hastings⁴, Matthew Knock², Karen Rudolph⁵, George Slavich⁶, Mitchell Prinstein¹, Adam Miller¹

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1-F-60 Romantic remembering: Social information determines individualized reward value and motivates memory

Benjamin Silver¹, Christopher Baldassano¹, Lila Davachi¹, Kevin Ochsner¹

¹Columbia University

1-F-64 The neural basis of adopting the optimal conceptualization to predict actions

Yiyu Wang¹, Danielle Russo¹, Richard Lane², Juliet Davidow¹, Ajay Satpute¹

¹Northeastern University, ²The University of Arizona College of Medicine

1-F-68 Racial bias in pain perception is associated with divergent patterns of activity in regions supporting social perception

★ Patrick Gilbert Reyes¹, Azaadeh Goharзад¹, Alexis Drain¹, Jennie Qu-Lee², Jingrun Lin³, Peter Mende-Siedlecki¹

¹University of Delaware, ²New York University, ³University of Virginia

1-F-72 The Neural Mechanisms of Sustainable and Unsustainable Behaviors

★ Kim Doell¹, Tobias Brosch²

¹New York University, ²University of Geneva

J - Emotion Perception / Communication

1-J-32 Assessing the Neurobiological Relationships Between Language Processing, Cultural Contexts, and Pain Perception among Spanish-English Bilinguals

Morgan Gianola¹, Elizabeth Losin¹

¹University of Miami

1-J-42 Interference Effects Related to Focus of Interoceptive Attention During Processing of Emotion Concepts

Alexandra Kelly¹, Evangelia Chyrsikou¹

¹Drexel University

M - Pharmacology

1-M-44 Structural coherence of dopaminergic projections to the nucleus accumbens (NAcc) is associated with greater dopamine reception in the NAcc

Josiah Leong¹, Ethan Ellis¹, Jaime Castrellon², Gregory Samanez-Larkin²

¹University of Arkansas, ²Duke University

Poster Session #2

Thursday, May 5 | 5:45pm - 7:15pm ET

A - Decision-Making

2-A-101 Classifying Correct Go and Correct Stop images in a Stop Signal Reaction Time Task

Benjamin Smith¹

¹University of Oregon

2-A-108 Impacts of learned preferences of social observers on risky decision-making

★ HeeYoung Seon¹, Dongil Chung¹

¹Ulsan National Institution of Science and Technology

2-A-111 Computational Mechanisms Underlying Partisan-Motivated Information Processing

★ Yrian Derreumaux¹, Brent L. Hughes¹

¹University of California, Riverside

2-A-83 Connectome-based Individualized Prediction of Reciprocity Propensity and Sensitivity to Framing Effect

Huihua Fang¹, Chong Liao¹, Zhao Fu², Shuang Tian², Yuejia Luo³, Pengfei Xu³, Frank Krueger¹

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B - Intergroup Processes

2-B-110 Shared Negative but not Positive Emotional Experiences are Associated with Neural Synchrony in the Medial Prefrontal Cortex

★ Jiani Li¹, Macrina Dieffenbach¹, Matthew Lieberman¹

¹University of California, Los Angeles

C - Basic Affect/Emotion

2-C-100 Bodily maps of spontaneous thought

Hyemin Shin¹, Byeol Kim², Hongji Kim¹, Choong-Wan Woo¹

¹Sungkyunkwan University, Center for Neuroscience Imaging Research, Institute for Basic Science, ²Dartmouth College

2-C-103 Individual variation in neurophysiological representation of negative emotional experiences is shaped by sociability: A naturalistic neuroimaging approach

Ruien Wang¹, Runquan Yu¹, Yan Tian¹, Haiyan Wu¹

¹University of Macau

2-C-106 Audio and Visual Confounds in Analyzing Brain Responses to Naturalistic Stimuli

Sunghbin Youk¹, Musa Malik¹, Yibei Chen¹, Rene Weber¹

¹University of California, Santa Barbara

2-C-112 Excited Smiles are More Rewarding for European Americans than Chinese

★ Elizabeth Blevins¹, Michael Ko¹, BoKyung Park², Yang Qu³, Brian Knutson¹, Jeanne Tsai¹

¹Stanford University, ²University of Texas at Dallas,

³Northwestern University

2-C-73 Social Rejection Causes Increased Right Frontal Cortical Activity in People High in Neuroticism

Ayomide Adedun¹, Paige Faulkner¹, Kyle Nash¹

¹University of Alberta

2-C-79 Taking a naturalistic neuroimaging approach to examine shared responses across cultures

Feng-Chun Chou¹, Po-Yuan Hsiao¹, Eshin Jolly², Luke Chang², Pin-Hao Chen¹

¹National Taiwan University, ²Dartmouth College

2-C-80 Neural activity mediates the influence of candidate smiling on political endorsement

Dylan Christiano¹, Golijeh Golarai¹, Lester Tong¹, Brian Knutson¹

¹Stanford University

2-C-81 Does simulated social support reduce negative emotion during autobiographical remembering?

Andrea Courtney¹, Ian Ferguson¹, Rui Pei¹, Jamil Zaki¹

¹Stanford University

2-C-85 Common and distinct neurofunctional representations of core and social disgust in the brain: Coordinate-based and network meta-analyses

Xianyang Gan¹, Xinqi Zhou¹, Jialin Li², Guojuan Jiao¹, Xi Jiang¹, Bharat Biswal³, Shuxia Yao¹, Benjamin Klugah-Brown¹, Benjamin Becker¹

¹University of Electronic Science and Technology of China,

²Max Planck School of Cognition, ³New Jersey Institute of Technology

2-C-89 Intersubject representational similarity analysis reveals individual variations in affective experience transcend cultural differences

Po-Yuan Hsiao¹, Feng-Chun Chou¹, Yi-Jung Lin², Eshin Jolly³, Luke Chang³, Pin-Hao Chen¹

¹National Taiwan University, ²Carnegie Mellon University,

³Dartmouth College

2-C-92 Social isolation enhances the effect of fantasy on appraising affective experiences

Yen-Si Kuo¹, Yi-Wen Huang¹, Feng-Chun Chou¹, Yu-Chieh Chen¹, Po-Yuan Hsiao¹, Chiang Lin¹, Hsuan-Jung Pan¹, Pin-Hao Chen¹

¹National Taiwan University

2-C-93 Know pain, know gain: Shared brain representations of sensory pleasure and pain

Soo Ahn Lee¹, Jae-Joong Lee¹, Jisoo Han², Myunghwan Choi², Choong-Wan Woo¹

¹Sungkyunkwan University, Center for Neuroscience Imaging Research, Institute for Basic Science, ²Seoul National University, Center for Neuroscience Imaging Research, Institute for Basic Science

2-C-97 Collective synchronization of facial behaviors under and after a large-scale social stressor

Hsuan-Jung Pan¹, Feng-Chun Chou¹, Yi-Wen Huang¹, Yen-Si Kuo¹, Yu-Chieh Chen¹, Po-Yuan Hsiao¹, Chiang Lin¹, Pin-Hao Chen¹

¹National Taiwan University

D - Emotion Regulation

2-D-95 Neural mechanisms underlying the modulation of attentional deployment on emotional sensitivity to missed opportunity in depressive individuals

Zhiyuan Liu¹, Zhenyu Zhang¹

¹Shaanxi Normal University

E - Clinical Disorders

2-E-87 MVPA Machine Learning Classifiers of Self-Evaluation to Predict Prospective Depression

Victoria Guazzelli Williamson¹, Samantha Chavez¹, Danielle Cosme², Robert Chavez¹, Jennifer Pfeifer¹

¹University of Oregon, ²University of Pennsylvania

2-E-94 Resting-state functional connectivity underlying the altered sensitivity to reward in depression

Shuang Li¹, Zhiyuan Liu¹

¹East China Normal University

F - Social Cognition

2-F-105 Effective manipulation of social closeness using inverse kinematics in interactive virtual reality environments

Mild Yekani¹, Milad Rahimi², Mohammad Zia³

¹TUMS, ²IPM, ³University of Tehran

2-F-107 Factors underlying the level of normative compliance with COVID-19 regulations: preliminary report

Oksana Zinchenko¹, Ekaterina Kosova¹, Kirill Stepanovskikh¹, Dorzhey Matkhanov¹, Todd Hare², Vasily Klucharev¹

¹National Research University Higher School of Economics, ²University of Zurich

2-F-109 Socioemotional Inference can be Predicted from Human Brain Activity

★ Marianne Reddan¹, Desmond Ong², Isabella Kahhale³, Tor Wager⁴, Jamil Zaki¹

¹Stanford University, ²National University of Singapore, ³University of Pittsburgh, ⁴Dartmouth College

2-F-74 Perceived social norms shape mental processing of naturalistic depictions of risky alcohol use: Evidence from neuroimaging and language use

Elisa Baek¹, Ryan Hyon¹, Karina Lopez¹, Mason Porter¹, Carolyn Parkinson¹

¹University of California, Los Angeles

2-F-75 Intrinsic brain connectivity dissimilarity predicts negative relationships

Ekaterina Baldina¹, Hairin Kim², Jeanyung Chey³, Yoosik Youm¹

¹Yonsei University, ²Boramae Hospital, ³Seoul National University

2-F-77 A Re-executable GLM-based fMRI Data Analysis: Replicating FSL through Nipype

Yibei Chen¹, ★ Frederic Hopp², Musa Malik¹, Paula Wang¹, Kylie Woodman¹, Sungbin Youk¹, René Weber¹

¹University of California, Santa Barbara, ²University of Amsterdam

2-F-82 Retrieval, Decisions, and Updates in the Self-Concept: Propagation of Feedback and Maintenance of Coherence in the Self-Concept

Jacob Elder¹, Tyler Davis², Brent Hughes¹

¹University of California, Riverside, ²Independent

2-F-90 Investigating neural mechanisms of empathy during one-way emotional communication using electroencephalography

Ruei-Jyun Hung¹, Hung-Chun Yeh¹, Po-Yu Wang¹, Yong-Sheng Chen¹, Li-Fen Chen¹

¹National Yang Ming Chiao Tung University

2-F-96 Neural Synchronization as a Function of Engagement with the Narrative

Tal Ohad¹, Yaara Yeshurun¹

¹Tel Aviv University

2-F-99 Neural basis for relative weight of social acceptance: An EEG study

Yulei Shen¹, Hiroki Tanabe¹

¹Nagoya University Graduate School of Informatics

G - Self

2-G-88 Neural representation fluctuations may predict identity modification in different social contexts

Julia Hopkins¹, Bernice Cheung², Brent Hughes¹

¹University of California, Riverside, ²University of Oregon

2-G-98 Mindfulness Training Increases Self-Kindness in Cancer Survivors: A Role for Mesocortical Reward-Related Functioning

Michael Parrish¹, Chloe Boyle¹, Janine Dutcher²,
Julienne Bower¹, Naomi Eisenberger¹

¹UCLA, ²Carnegie Mellon University

I - Development

2-I-104 The Impact of Digital Media on Youths? Attention Development: An Analysis with ABCD Data

Kylie Woodman¹, Yibei Chen¹, Paula Wang¹, Rene Weber¹

¹University of California, Santa Barbara

2-I-84 Differential developmental trajectories of the two components of indebtedness's contribute to the transformation of friend-selection preferences in mid-childhood

Ying Fang¹, Xiaoxue Gao¹, Weijian Li², Jinlian Qin²,
Xiaolin Zhou¹

¹East Normal University, ²Zhejiang Normal University

J - Emotion Perception / Communication

2-J-86 The effect of methylphenidate on cognitive empathy in adults with ADHD

Shir Genzer¹, Yifat Strumberger¹, Anat Perry¹

¹Hebrew University of Jerusalem

K - Network Science

2-K-78 An exploration of the relationships between brain network topology and body fat percentage

Bernice Cheung¹, Elliot Berkman¹, Benjamin Hutchinson¹

¹University of Oregon

N - Stress

2-N-102 Investigating brain and cardiovascular responses to develop a machine learning model for acute and chronic stress detection

Luan Tran¹, Thao Mai Le¹, Lan-Anh Hoang Duong¹, Tu Do²,
Tho Anh Le², Thuong Nguyen¹, Anh-Minh Hoang An¹,
Thinh Vu Tran¹, Dang Nguyen¹, Duy Phan¹, Quyen Thao
Nguyen¹, Khiet Thu Dang¹, Quyen Hoang Quoc Vo¹,
Hanh Cao¹, Nhu Huynh Vo Nguyen¹, Sinh Anh Nguyen²,

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Poster Session #3

Friday, May 6 | 9:30am – 11:00am ET

A - Decision-Making

3-A-46 Neural encoding of health attributes when evaluating food predicts real-world desire for healthier foods.

Allison Londeree¹, Dylan Wagner¹

¹The Ohio State University

3-A-115 How does art knowledge training impact judgments of artworks?

Ionela Bara¹, Emily Cross², Richard Ramsey³

¹Bangor University, ²University of Glasgow, ³Macquarie University

3-A-121 Neuronal signature of the medio-prefrontal cortex for unexpected non-cooperation in social interactions

Patricia Christian¹, Alexander Soutschek¹

¹Ludwig-Maximilians University Munich, Germany

3-A-141 Temporal dynamics of the neural response to social relative to non-social rewards

Talia RS Naiman¹, Aaron Heller², Dominic Fareri¹

¹Adelphi University, ²University of Miami

3-A-145 Strategic Decisions in Bargaining Situations Are Associated with Activation in the Caudate

Daniel Sazhin¹, Jeffrey Dennison¹, James Wyngaarden¹, Athena Vafiadis¹, Ori Zaff¹, Neriah Kahn¹, Makayla Collins¹, Amanda Nguyen¹, Ishika Kohli¹, Dominic Fareri², Michael McCloskey¹, Johanna Jarcho¹, David Smith¹

¹Temple University, ²Adelphi University

3-A-158 Brain responses to gain- and loss-framed messages differ, and interact with baseline physical activity, to predict later behaviors

★Jeesung Ahn¹, Nicole Cooper¹, Yoona Kang¹, Matthew O'Donnell¹, Mikella Green², Gregory Samanez-Larkin², Emily Falk¹

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B - Intergroup Processes

3-B-120 Is Conformity Public Compliance or Implicit Acceptance? Evidence from EEG Representation Similarity Analyses

Danni Chen¹, Ziqing Yao¹, Xiaoqing Hu¹

¹The University of Hong Kong

3-B-133 The neurocognitive basis of trusting identity-relevant news: Motivated reasoning vs identity bias

Ioannis Lois¹, Arno Riedl¹, Elias Tsakas¹, Kenneth Yuen²

¹Maastricht University, ²University of Mainz

3-B-151 Racial Bias in Pain Perception is Robust, Rapid, and Spontaneous

Aizhaer Tuerxuntuoheti¹, Azaadeh Goharзад¹, Alexis Drain¹, Patrick Reyes¹, Peter Mende-Siedlecki¹

¹University of Delaware

3-B-152 The Role of the Posterior Cerebellum in Dysfunctional Social Sequencing

Frank Van Overwalle¹, Chris Baeken¹, Kris Baetens¹

¹Vrije Universiteit Brussel

3-B-156 Threat generalizes over visual outgroup but not ingroup faces: A matter of neural face distinction?

Niclas Willscheid¹, Florian Bublitzky¹

¹Central Institute of Mental Health

C - Basic Affect/Emotion

3-C-113 Novelty Exposure Interferes with Visual Emotional Memory Consolidation

Isabella Aslarus¹, M. Alexandra Kredlow², Haoxue Fan³, Elizabeth Phelps³

¹Brown University, ²Tufts University, ³Harvard University

3-C-124 Structural coherence of dopaminergic projections to nucleus accumbens correlates with greater anticipatory reward activity in adolescents

Ethan Ellis¹, Josiah Leong¹

¹University of Arkansas

3-C-129 The Role of Episodic Memory and Brain Function in Promoting Biased Recall for Social Feedback

Camille Johnston¹, Megan Quarmley¹, Chelsea Helion¹, Vishnu Murty¹, Johanna Jarcho¹

¹Temple University

3-C-146 Sensing danger: Autonomic arousal to recognized and unrecognized person identity from formerly threatening or safe contexts

Sabine Schellhaas¹, Christian Schmahl¹, Florian Bublitzky¹

¹Central Institute of Mental Health

3-C-148 The Effect of Stressor Controllability on Physiological Responsivity and Perceived Stress: The Potential Modulating Effect of Trauma Exposure

Georgia Spurrier¹, Elizabeth Kitt¹, Emily Cohodes¹, Paola Odriozola¹, Jeffrey Mandell¹, Camila Caballero¹, Sarah McCauley¹, Sadie Zacharek¹, H Hodges¹, Jason Haberman¹, Mackenzie Smith¹, Janeen Thomas¹, Olivia Meisner¹, Catherine Hartley², Dylan Gee¹

¹Yale University, ²New York University

3-C-150 Neural categorical perception of subjective affect

Monica Thieu¹, Kevin Ochsner¹

¹Columbia University

3-C-153 Disentangling neural representations of threat and distress, and their role on helping under threat

Joana Vieira¹, Andreas Olsson²

¹Karolinska Institute, ²Karolinska Institutet

D - Emotion Regulation

3-D-67 A Machine Learning Approach Towards the Differentiation Between Interoceptive and Exteroceptive Attention

Zoey Zuo¹, Cynthia Price², Norman Farb³

¹University of Toronto Scarborough, ²University of Washington, ³University of Toronto Mississauga

3-D-114 Can structural brain features predict Trait Anxiety?: A Supervised Machine Learning approach

Teresa Baggio¹, Alessandro Grecucci¹, Federica Meconi¹, Irene Messina¹

¹University of Trento

3-D-116 Neural underpinnings of individual differences in emotion regulation

Ulrike Basten¹, Carmen Morawetz²

¹University of Koblenz-Landau, ²University of Innsbruck

3-D-123 Acceptance promotes effective emotion regulation through experiencing intensive unpleasant reactions to negative social stimuli: an fMRI study

Anita Deak¹, Reka Rendes¹, Gergo Orsi², Gabor Perlaki², Tamas Bereczkei¹

¹Institute of Psychology, Faculty of Humanities and Social Sciences, University of Pecs, ²MTA-PTE Clinical Neuroscience MR Research Group, Eötvös Loránd Research Network (ELKH)

3-D-127 Interpersonal Emotion Regulation Mitigates the Link between Trait Neuroticism and a More Negative Valence Bias

Nicholas Harp¹, Rebecca Brock¹, Maital Neta¹

¹University of Nebraska-Lincoln

3-D-138 What is the link between emotional intelligence and emotion regulation? Behavioural and resting-state functional connectivity evidences

Bianca Monachesi¹, Federico Zanella¹, Alessandro Grecucci¹

¹University of Trento

3-D-139 Intrinsic brain network connectivity predicts mood variability in substance use disorder

Carmen Morawetz¹, Stella Berboth¹, Valentine Chirokoff², Sandra Chanraud², David Misdrahi², Fuschia Serre², Marc Auriacombe², Melina Fatseas², Joel Swendsen²

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3-D-140 Intrinsic causal network dynamics at rest predict emotion regulation success depending on contextual demands

Stella Berboth¹, Stefan Bode², Carmen Morawetz¹

¹University of Innsbruck, ²University of Melbourne

3-D-143 Individual Differences in Emotion Regulation Choice: The Tendency to Reappraise is Associated with Individual Regulation Capacity, Resilience, and Well-Being

Ulrike Basten¹, Rebecca Rammensee¹, Carmen Morawetz²

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3-D-149 Interplay between peer and family relationships, emotional symptoms and regional brain volume across adolescence: Latent Change Score Modelling of IMAGEN data

Jessica Stepanous¹, Luke Munford¹, Pamela Qualter¹, Rebecca Elliott¹

¹University of Manchester

E - Clinical Disorders

3-E-119 I told you he was dangerous: Psycho-physiological defensive responses to instructed and reversed threat persons

Florian Bublatzky¹, Kathrin Zauner¹, Eva Morduhaev¹, Inga Niedtfeld¹, Christian Schmahl¹

¹Central Institute of Mental Health

3-E-142 Brain structure explains self-report empathy and clinical psychopathy in male criminals

Marcin Radecki¹, Erika Sampaoalo¹, Giada Lettieri², Giacomo Handjaras¹, Carla Harenski³, Silvia Pellegrini⁴, Pietro Pietrini¹, Kent Kiehl⁵, Luca Cecchetti¹

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F - Social Cognition

3-F-117 The Organizational Principles of Impression Formation

Gabriele Bellucci¹

¹Max-Planck-Institute for Biological Cybernetics

3-F-118 Real-world socialising impacts brain function: daily conversation detected with passive mobile sensing predicts resting state functional connectivity

Dhaval Bhatt¹, Jeremy Huckins¹, Andrew Campbell¹, Meghan Meyer¹

¹Dartmouth College

3-F-122 Cooperative behavior evokes inter-brain synchrony in the prefrontal and temporoparietal cortex: A systematic review and meta-analysis of fNIRS hyperscanning studies

Artur Czeszumski¹, Sophie Hsin-Yi Liang², Suzanne Dikker³, Peter König⁴, Chin-Pang Lee², Sander Koole⁵, Brent Kelsen⁶

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Planck - NYU Center for Language, Music and Emotion,

⁵University of Osnabrück, ⁶Vrije Universiteit Amsterdam,

⁷Language Center, National Taipei University

3-F-125 Social task management: Switching between humanized and dehumanized perception - an exploratory EEG study

Rebecca Geiselmann¹, Sarah Crockford², Melissa J'Hurry³, Anna Remington¹, Lasana Harris³

¹LMU Munich, ²University of Cambridge (Trinity College),

³UCL London

3-F-126 Social thinking is for doing: The posterior cerebellum supports prediction of social actions based on personality traits

Naem Haihambo¹

¹Vrije Universiteit Brussel

3-F-128 The Rashomon Effect: Event Representations in the Medial Prefrontal Cortex Are Driven by Beliefs About the Events

Nir Jacoby¹, Chelsea Helion², Lila Davachi¹, Kevin Ochsner¹

¹Columbia University, ²Temple University

3-F-130 The influence of intentionally caused trauma on learning to trust.

Pernilla Jönsson¹, ★ Amy Walsh¹, Marc Guitart-Masip¹, Andreas Olsson¹

¹Karolinska Institutet

3-F-131 Mind Your Step: Social Cerebellum in Interactive Navigation

Meijia Li¹, Frank Van Overwalle¹

¹Vrije Universiteit Brussel

3-F-132 Every individual makes a difference: A trinity derived from linking individual brain morphometry, connectivity and mentalising abilities

Zhaoning Li¹, Qunxi Dong², Bin Hu², Haiyan Wu¹

¹University of Macau, ²Beijing Institute of Technology

3-F-134 EmBody/EmFace: A New Open Tool to Assess Emotion Recognition from Body and Face Expressions

Lea Lott¹, Franny Spengler¹, Tobias Stächele¹, Bastian Schiller¹, Markus Heinrichs¹

¹University of Freiburg

3-F-135 The negative impact of face occlusion by masks on social communication is reduced by the availability of appropriate emotional context

Sarah McCrackin¹, India Audet¹, Jelena Ristic¹

¹McGill University

3-F-136 A network neuroscience approach to perceived social support

Haily Merritt¹, Joshua Faskowitz¹, Marlen Gonzalez², Richard Betzel¹

¹Indiana University, ²Cornell University

3-F-147 Behavioral and neural correlates of observational learning depend on descriptions of the observed demonstrator's ability

Ida Selbing¹, Nina Becker¹, Yafeng Pan¹, Björn Lindström², Andreas Olsson¹

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3-F-157 The strength of others' empathic reactions shapes empathy-related processes in the observer

Yuqing Zhou¹, Shihui Han², Pyungwon Kang³, Philippe Tobler³, Grit Hein¹

¹University Hospital Würzburg, ²Peking University,

³University of Zurich

3-F-160 Naturalistic Complexity Modulates Intersubject Representational Similarity in Moral Cognition

★ Frederic Hopp¹, Yibei Chen², Rene Weber²

¹University of Amsterdam, ²University of California, Santa Barbara

3-F-161 Complex emotion processing is represented throughout the cortex and modestly differs across childhood and adolescence

★ M. Catalina Camacho¹, Ashley Nielsen¹, Dori Balser¹, Leah Fruchtmann¹, Emily Furtado¹, David Steinberger¹, Arieona Witherspoon¹, Joseph Culver¹, Chad Sylvester¹, Deanna Barch¹

¹Washington University in St. Louis

3-F-162 On the impact of the genocide on the intergroup empathy bias between former perpetrators, survivors and their offspring in Rwanda

★ Emilie Caspar¹, Guillaume Pech², Darius Gishoma³, Clémentine Kanazayire³

¹Ghent University, ²Université libre de Bruxelles,

³University of Rwanda

H - Learning

3-H-144 The observational feedback-related negativity indexes prediction error in adults, but not in children

Maria Azanova¹, Hauke Heekeren²

¹Max Planck Institute for Human Cognitive and Brain Sciences, ²Freie Universität Berlin

3-H-159 The impact of lack of perceived stress controllability on reward learning.

★ Amy Walsh¹, Peter Dayan², Andreas Olsson¹, Marc Guitart-Masip¹

¹Karolinska Institutet, ²Germany University of Tübingen, Germany

I - Development

3-I-163 Variation in the mu-opioid receptor gene (OPRM1) moderates influence of maternal sensitivity on child attachment

Kristina Tchalova¹, John Lydon¹, Leslie Atkinson², Alison Fleming³, James Kennedy⁴, Vanessa Lecompte⁵, Michael Meaney⁶, Ellen Moss⁷, Kieran O'Donnell⁸, Marla Sokolowski³, Meir Steiner⁹, Jennifer Bartz¹

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J - Emotion Perception / Communication

3-J-137 Prosociality is sensitive to subjective sleepiness via the mediation of empathy

Zizhuang Miao¹, Yanjie Su¹

¹Peking University

3-J-155 Copying choices induces liking: an online study of art preferences

Paula Wicher¹, Eva Krumhuber¹, Antonia Hamilton¹

¹UCL



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